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ARTICLE I.

DOCTORATE ADDRESS Delivered at the Commencement of the Woman's Medical College, by WM. H. BYFORD, A.M., M.D., President, on April 22, 1884.

Ladies and Gentlemen :—The Faculty of the Woman's Medical College have kindly requested me to represent them before this audience.

I feel flattered by this request, and regret that my ability for the discharge of such a duty is not as great as I could desire. I accept it, however, because I have something I want to say to the non-professional portion of this assembly, on the subject of woman's fitness for the practice of medicine, and the propriety of her doing so.

I admit that there is not much need of argument in favor of a demonstrated fact; but I am also aware that there yet remains much prejudice in the minds of many honest people against medical women.

The propriety and necessity of women entering the profession of medicine, and indeed, other avocations heretofore occupied by men, are but the results of changes in our social fabric which have been going on for a long time. The position of woman in

her relations to society, is not what it was a half century ago, and can never be restored to her. Many of the agencies that have brought this about, are still at work, and their future effects will be irresistible. Many of us remember the time when every woman could look forward to the possession of a home, and to a time when she could exercise those functions for which by nature she was intended, and in which she could enjoy the preëminent blessings of domestic life. Her training led up to those grandest of all duties, the moulding and education of her generation.

In her was centered, to a greater extent than any other being, the happiness and prosperity of mankind. Unfortunately, with the march of events, the conditions under which such a life was practicable, have been swept from society, and hundreds of thousands of women cannot aspire to domestic duties.

It is a curious fact, that much of this change has been brought about by the great advance made in modern civilization. Labor-saving machinery, the result of science applied to the every day affairs of life, does the spinning, weaving, sewing, knitting, washing, and a great many other kinds of work formerly done by women.

This, of course, relieves women of a great deal of drudgery, and in a certain sense improves the condition of those who can live without laboring for their own support, but it leaves others unable to earn a living in occupations recognized as belonging to them.

Then again, many of the duties devolving upon womankind are allotted to the opposite sex. The male cook, house servant, and laundryman, are too common to require mention, and scarcely less numerous are male milliners, and mantua-makers. It would be tedious to recite all the usurpations of the scientific workers of the sterner sex. I say, scientific workers, because even cooking and washing, as well as many other domestic processes, are done in accordance with chemical and mathematical principles.

I do not wish to be understood as complaining of the unquestionably great improvements of the times. They are no doubt, designed to, and will work out beneficent results for the race, but until society accommodates itself to the changes, we must expect some of its members to suffer on account of their unfav-

orable position in social life. We should not, perhaps, desire a restoration to women of all their former occupations, but should seek for them, in the new and better state of things, more profitable, if not more congenial avocations.

Another question relevant to the subject of the changes now going on in society, is matrimony. The order of things in time past, made the obligation to marry imperative, and the stigma "old maid" was a galling taunt to every sensitive woman. Even now, the most desirable thing for every good woman is to marry, and I am sure I will not be wide of truth in stating that almost, if not quite all women, look upon the undivided devotion of one good man as the main element of an earthly paradise. And they are right. But, in the very nature of things, many women cannot marry. A number of reasons will present themselves in support of this statement. There is a great numerical disparity of the sexes. The marriageable women of this country exceed the number of men who *might* enter the bonds of matrimony. Then there is a growing disposition among men not to marry. Why should this be? There are many good causes, when we look upon the subject from the 'standpoint of the social changes going on. Every American whose love of liberty depends very greatly upon his ability to stand square before society with every other American, has not the means to support himself and a wife in first-class style. His desire is, very naturally, that his wife should be as accomplished and beautiful as any other woman living. He must therefore support her and an establishment in accordance with his views, or he will not marry. Born and educated in society as it now is, who can blame him? The majority of women look for this kind of a man. Society, you know, demands this kind of respectability, or seclusion. While he lives in a hotel, or club-house, dresses well, and behaves himself with propriety, society receives him with open arms. If he marries, and cannot keep up appearances, it shuns him. Sometimes good, honest, affectionate men marry and take their wives to hotels or boarding houses, and spend all their earnings to keep up appearances; but too frequently, this artificial and strained mode of life leads to conjugal infelicity, instead of domestic happiness.

Should one of these men have the courage to marry and live

in the humble manner warranted by his income, his gilded surroundings often lead to discontent.

And again, how the male vagabonds in this land are multiplying, men whom no good woman can marry and maintain her self-respect! These things are a part of the great changes now transpiring in the social world.

These, and like circumstances, are so numerous as to compel women to look out for independent means of support, and they are showing themselves equal to the task. The doors of domestic life are closed against so many of them, that they would be reckless if they did not seek some occupation that would enable them to live honestly, respectably, and independently.

It is not my purpose or desire to advocate the political rights of woman, nor to express my opinion upon this subject, which all must see is becoming an important problem of the age, but I am here to say that it is the sacred duty of us all to promote every enterprise that gives her an equal chance for an honest independence. She deserves such equality, and society will not be vindicated in her almost revolutionary progress until that end is attained.

The medical education of women is one of the means calculated to promote that very desirable object. There are still lingering among us, some persons who object to female practitioners of medicine. They urge objections which are based upon unfounded sentiment, instead of good sense and logic. The foundation for valid objections has long since ceased to exist. Such objectors believe that this and kindred movements will have the effect of undermining that good old institution we call "home."

No man has more veneration for the sacred relations existing among members of a well-regulated home, than I have. No man would go farther to foster that more than human institution, with all its precious belongings, as it was, and now is, than I would. No man reveres the holy relationship of mother, the loving and warm-hearted wife, or the confiding, worshipping dependence of a daughter more than I do. But all this laudable sentimentality about home should not blind us to the fact that there are now, and in the future must remain thousands upon thousands of women to whom none of these relations can come.

There are many men who affect to believe that the study of medicine has a degrading influence upon the pure minds and hearts of the sex, and that the practice of that almost divine art places her outside the pale of propriety. Useful knowledge is always elevating to its possessor, and whatever her future destiny may become, woman is purer and wiser, because of a knowledge of the physical and mental attributes of human beings.

Regarding the honored positions of mother and wife, as I do, as the most elevated any good woman can occupy, I consider that only a very little lower is that of the woman to whom are entrusted the lives of the mother and her children.

But is woman capable of discharging the mighty obligations incumbent upon practitioners of medicine? Has she the physical strength, nerve, and endurance, and has she the brains? These are practical and not sentimental questions, questions that must be answered by an array of facts instead of imaginative theories.

In traveling through Belgium and Austria, I think I saw the first part of this interrogatory answered, in a very emphatic, if not gallant manner, where woman is compelled to try her strength with a donkey, by being hitched by his side to a heavy cart.

On the way from Brussels to Waterloo, on the military highway built by the despotic Emperor of France for the subjugation and maintenance of his authority over the people who have so degraded womankind, may be seen every few rods such a team as this, tugging and trudging along before a cart filled with manure to enrich the soil, upon which the two working together may raise vegetables, to be brought to market in the same manner.

In the Austrian capital I have seen women carrying large hods of brick and mortar on rickety ladders to the top of the tallest structures. They did this while a representative of the lords of creation stood around to direct aright the muscular energies of these stalwart females.

It is a well-known fact, that in many of the old countries in Europe the women do the most laborious portion of farm duties. These exhibitions of physical power and endurance cannot fail to impress the observer with a better opinion of the capabilities of

the sex to bear the toil and fatigues of the profession that tries men's muscle and nerve.

But a fact more to the point may be found in the habits of the pioneers of this country, and it is pertinent, because it is an experiment elucidating the endurance of woman in the very duties to which her professional education calls her. When this and the immediately neighboring States were the western frontier, sparsely settled, covered with marshes, prairies, and forests, swept by the coldest of winds in winter, and parched by the hot sun of summer, there was a class of women called midwives, whose avocation and responsibilities were of the most trying character. They traveled by day and night, through the wet and cold, in the unceasing demands of their calling, and maintained a physical condition equal to every occasion that might present itself. I know that many of them did more of this irregular and wearing business than usually falls to the lot of the popular practitioner of the city or country. Often they themselves were mothers of large families, and were full of domestic obligations.

Even now, in this city, I could point to women who are enduring the ordeal of a full practice in this specialty, with all its trials, better than the majority of men. Those whose experience has placed them in a position to know, will assure you that there is no branch in the medical profession so exacting in toil, self-denial, and responsibility as this, and yet it is the one which has always largely devolved upon women. Is it not absurd, then, in view of these facts, to say that woman has not the physical ability to practice medicine? That objection is a subterfuge under which to cover the prejudices of the objector, or if honestly entertained, it is for want of definite information upon the subject, and consequently, proves itself to be mere ignorant prejudice.

The question is not whether women, as a class, are as strong as men, but whether they possess the strength necessary to become efficient practitioners. In view of the facts of the past and the present, I can have no doubt they are.

But, has she the nerve and courage equal to the appalling emergencies which sometimes unexpectedly present themselves? Has she the daring and dash of a bold surgeon? is she capable of doing the right thing at the right time, with that calm self-pos-

session so necessary to carry her through great surgical operations? Let us see. What is surgical courage? Is it a natural gift possessed by a few favored ones? I am sure it is not. It is an acquisition to which the best of us attain through an elaborate process of training. It is one of the results of a thorough medical education. It does not come to the strongest of us except in that way. Is this not true in every vocation requiring courage? Green recruits are not the reliable support of an army. The veterans only are an unflinching resistance to the advance of a powerful foe. Let the soldier tell you whether he was not strongly inclined to conceal himself or fly from the enemy in his first battle. Even the veteran hero of Waterloo, once said that he never entered a battle without trepidation, and that he never exposed himself to danger except from a sense of duty, and that natural bravery did not enter into his composition. Yet he never was suspected of cowardice, nor was he a coward, but he had acquired the courage necessary for a great general, and capacity of becoming the conqueror of Napoleon, through military training.

Surgical courage, technically speaking, is not a congenital trait of character. No one knows this better than the veteran surgeon. Now, in reference to courage in our profession, every surgeon remembers the harrowing episodes of his early career; with what misgiving, apprehension, and trepidation, he approached the lying-in chamber, or grave surgical operation, and how exhausted after he had passed through any considerable difficulty in either situation. It takes a long time to completely overcome the solicitude of the surgeon who is preparing to do a great surgical operation, which may decide the fate of a fellow being. And in this respect, all are alike, all are more or less discomposed when first entering the practical part of professional life.

In the very nature of a medical education, there is discipline that gradually leads the new recruits up to the degree of courage necessary for action. The dry skeleton commences the drill. Its naked squalor, the ugly grin with which it greets you, not only its teeth, but every bone in its ghastly countenance express more impressively than actual words, the presence of

death. The very sight of it causes the uninitiated to recoil in breathless horror. The student soon learns to scan every part of it with the intensest interest, and familiarly, indeed almost lovingly to nurse it into the late hours of night, and when all its mysteries are mastered, it is laid aside for the cultivation of subjects a grade higher in ghastliness. These are found in the dissecting room. The feelings of every individual when first entering that place are simply indescribable. Nothing but the knowledge that it is the ante room to physiology and pathology,—the processes of life and death—could reconcile the student to return to the dreadful scenes there displayed with such ghastly reality. Yet that place becomes so attractive that one forgets all its horrors, in the sublime glimpses it affords of the workings of the Great Author of our being. And after a time, the timid woman will fondly gaze into this mirror of humanity, and regret when obliged to leave it for still further advances in the study of her glorious art. Indeed, so captivating and so necessary is the study of anatomy, that she will often recur to it, and stand absorbed in its revelations with a pleasure incomprehensible to those who have not passed through such experiences. This is an exhibition of professional courage that may well be regarded as a great step in her march towards victory over her natural timidity.

The autopsy now is an inspiration to her—it is an exhibition of the traces drawn by the hand of her grim enemy upon his victim, and teaches her the methods of his approaches and attacks upon the citadel of life. She is thus armed with the knowledge which will enable her to parry his thrusts, and baffle his deadly onslaughts upon our nature.

In the hospital she becomes familiar with the anatomy of the living, every conceivable form of bloody mutilation, and the expression of pain, suffering, and death. She participates in the ministrations of the hospital staff, aiding the surgeon, and sometimes performing amputations, the removal of tumors, and other operations, until she knows all the methods, and has acquired—what people call “hard-heartedness”—but which is surgical courage enough to look with calmness upon scenes which fill with terror her uninitiated sister. Amid these scenes in

which she is an actor, she acquires the strength of nerve, and the habit of composure, that enables her to do her duty in every trial with promptitude and precision.

That women are equal to all the emergencies of the most important surgical and obstetrical operations, we have ample proof in this city and elsewhere. There are scores of women surgeons in this country who have repeatedly done the most daring and difficult surgical operations, and the number of individuals educated up to that point grows larger. I have many times witnessed the exhibition of this surgical capacity and coolness on the part of women in this city. I could point out to this audience women practitioners who do not hesitate to undertake, and who accomplish surgical achievements of which any man might be proud. I will venture to assert, what is generally known to the profession in Chicago, that one of our *alumnæ* left as brilliant a surgical record in Cook County Hospital as any young man who preceded her. And the young male interne who shall excel her in boldness and dexterity in that branch of the healing art, will some day win for himself position and renown.

Medical women have successfully embarked in the literature of the profession. Several of them have written books that are regarded very justly as eminently respectable authority on the subjects upon which they treat, and every month well-written papers from them adorn the pages of the medical journals of this country.

In the medical colleges devoted to the education of the sex, women are chosen for, and very acceptably discharge the duties of teachers and professors, and with a continuation of the progress they are now making, it will require but a few years to render these institutions as they ought to be — entirely independent of medical men for their corps of teachers.

As practitioners, the people of this city can judge for themselves. How many women are now enjoying the confidence of the people, and are engaged in lucrative professional practice, I will not undertake to say, but we all know of a score or more, and they are becoming more numerous every year. The prejudices which have been transmitted from one generation to another for a long time, are rapidly giving way under the new state of things. The intelligent observer who has been cognizant of the changes

which have been going forward for the last twenty years, can easily appreciate the causes which are dissipating this firmly-rooted prejudice against women.

Before women were admitted to the medical colleges, and permitted to enjoy the privileges these institutions afford them, the women who practiced medicine were ignorant, and in most instances, unscrupulous pretenders, and deserved the condemnation of the people and the profession. Those who were honest, and had the good of their patients at heart, were debarred from the opportunities of obtaining a thorough medical education. Their chances for knowledge were confined to the reading of a few antiquated books, and the occasional opportunities for observations they were so fortunate as to be blessed with. In addition to their entire absence of thorough teaching, many of them were of a very low type of womankind. To do justice even to this class of pretenders, however, it ought to be said that they had their professional prototypes in the opposite sex, and that scores of men practiced medicine who were equally ignorant and unscrupulous, for whom there is no valid excuse, as they had free access to the medical colleges at all times. Now, thanks to medical legislation, both of these classes of charlatans are driven from our profession, and both sexes enjoy equality in the opportunities to obtain a medical education. Women not only have the opportunities to study and become scientific practitioners, but the standard of the schools to which they are admitted is as high, and the requirements as rigid as in colleges graduating men. Their sex affords them no immunity from the same exacting examinations for the degree of Doctor of Medicine, and they do not expect or desire that it should. We find them bright, intelligent, and earnest students, and they pass examinations that would entitle them to the honors of any medical college in the country. This places them in the category of scientific physicians, and upon the same plane of standing with medical men.

The intelligent members of society are becoming aware of these changes in the circumstances under which women are educated, and consequently, the qualities of women practitioners. The result is, they appreciate them more, and are employing them with

more freedom, and giving them that implicit confidence to which every competent and faithful physician is entitled.

Now, having witnessed what they have done for themselves in a little over two decades of time, I think we can justly say that they have achieved an honorable beginning, and can reasonably predict for them a permanent and enviable position in the profession for all time to come.

TO THE CLASS OF GRADUATES.

How natural it is for us when we are graduated to look upon the knowledge imparted to us as our own, and think of it as the result of our own hard study. This would be a very great mistake for you to make. You have been studying three years, and have been successful in fixing in your minds a small modicum of professional knowledge. You have not made any of the discoveries of facts upon which that knowledge is based. Millions of the best men of all time have been for many centuries constantly engaged in analyzing, demonstrating, and arranging the facts and knowledge which have been imparted to you in the last three years. Imagine yourselves searching for the information necessary to fit you for the practice of medicine without the light thus afforded, and you will realize how much you owe to your predecessors, and how little credit is due you in the work of accumulation. The laborers of the past ages, who have thus faithfully and ardently worked to acquire knowledge, and those of the present time who are still pushing forward, surveying every field and path of science in which facts relevant to their own may be found, constitute the profession of medicine.

To this body of worthy workers you owe everything you have, all you are, and all you can become professionally.

I say this much to you now, to show you how devoid of reality is that sense of independence upon which the neophyte is apt to base his calculations for the future. While you go with this strong multitude who have through us honored you with a certificate of membership, you will be borne with it, and participate in its triumph. When you turn your back upon it, you will be left in the dark. When you turn your hands against it, you will be

crushed in the struggle. Motives of self-interest, as well as the more noble sentiment of gratitude, prompt you to be good and faithful members of that ancient and honored body. Somehow, more is expected of women than of men. While your critics accuse you of being the weaker sex, they are ungenerous enough to exact from you more strength of character than they do from men. They will tolerate no short-comings in you. This, quite as much as the fact that female physicians are still on probation, will put you on your good behavior. Knowing you as well as I do, I welcome the result with the full assurance of triumph. But professional strength is just as necessary for you as professional honor. That comes from much study. The old threadbare saying, "Once a student, always a student," expresses the only condition upon which you can hope to become useful and successful practitioners.

Those richly endowed old friends of yours, to which you have devoted so much attention, that marks and annotations may be found on every page, still possess treasures from which you can draw more knowledge than you have already extracted. At the bedside they will assist you to differentiate the intricacies of disease, to clear up the dark places in pathology, and to treat successfully all curable maladies. If you do not consult them, but trust to the uncertain memories of your student days, their valuable contents will fade from your minds. While the books that have served you thus far are still valuable to you as physicians, you will be obliged to add new ones to your library, and to these some one or two of the best medical journals, and all must be read and assimilated. These new books and journals, if properly studied, will keep you on the tide of progress, and acquaint you with what discoveries in all branches of the healing art are being made in any part of the world. Keep constantly in mind that knowledge will bring you reputation, that it will secure to you a competency for the present, a fund for the days when you are not able to work. It will give you a welcome to all grades of social life, but what is better than all these, it will be the means in your hands of doing good. Doing good is the final object of the profession. Without that object it could not, and ought not to exist, and I need not repeat to you what you

have already heard, and will again hear, that the good done by our profession cannot be measured by any finite idea of quantity or quality, but must be left to the award of an infinite hereafter.

To this profession you are under obligations to add something to the store of knowledge which is intended for your successors. As the child can never repay its parents for the love and care so lavishly bestowed, except to give in kind these bountiful blessings to his own offspring, so you cannot absolve your obligations to the profession, except by leaving behind you some new facts or processes of cure. This, too, is the only way to attain to professional immortality. One single imperishable fact will carry the impression you may make upon the world on down the stream of time, until science expires in the coming future dark ages of the world.

There is another view of your obligations to the profession. You know it is but a short time since your claims have been presented for recognition, and for some time difficulties await you at every turn. Now, however, a general welcome is extended to you. That recognition is both public and private. You are admitted to the State, district, county, and city medical societies, and are entitled to all the benefits, both scientific and social, of all these associations. I am rejoiced to tell you also, in this connection, that one of the members of the Faculty of the Woman's Medical College of Chicago can claim the distinguished honor of being the first woman admitted to that great institution, the "American Medical Association." In private practice, you will in every way receive the respect and deference of all medical practitioners. What is better even than all this favorable state of things, is that some of you are the honored wives of medical men, and some more of you are betrothed to medical men. There is probably nothing that in so distinguished a manner carries with it the idea of equality, as the matrimonial alliance. Now that you have passed the curriculum, and are entitled to the open secrets of the college, I am willing to say to you that it is, for the Faculty, a very pleasant thing to educate and prepare one of a couple who have plighted their vows of love to each other, while the man of her choice is attending some other of the excellent medical institutions of the city. We always expect to have the best graduate.

A valedictory address is usually a farewell address, in which we are supposed to indulge in lachrymose demonstrations of sorrow at parting. My address, however, is one of welcome, and I rejoice far more than I lament that you are going home to mingle with friends, who are much dearer to you than we are.

Hitherto I have lectured to you as students, who were dependent upon the Faculty of this college for instruction and advice. I now address you as doctors, as peers in titular dignity, and in the name of the one hundred thousand members of the profession in the United States, I extend to you the right hand of fellowship.

I do this gladly, knowing you, as I do, to be worthy of the honorable association. The Woman's Medical College of Chicago sends you out among those of the profession to whom you are strangers, as its representatives. We do this gladly, knowing you will worthily represent us. We know that in each of you are united the modesty and purity of honored womanhood, to the varied and lofty erudition of Doctors in Medicine. We know that you possess the qualities that will make you ornaments to society, and skilled members of our fraternity. Again I bid you all a most cordial welcome.

ARTICLE II.

PARETIC DEMENTIA AND LIFE INSURANCE.* A Study of the Dwight Case. By JAMES G. KIERNAN, M.D., Chicago.

The Dwight Case was a decidedly complex one, and what in my opinion, was the most important of its problems, was not at all considered in the decision which terminated it. Whether Col. Dwight did or did not commit suicide to enrich his family, seems to me to be a matter of subordinate importance. The reasoning adopted to prove that suicide is a sometimes sane act, was not at all suited to its purpose, and from a scientific standpoint, worthless. No alienist worthy of the name will claim that suicide *per se* is an evidence of insanity. Suicide in a con-

*Read before the New York Society of Medical Jurisprudence.

scientious Roman Catholic would be presumptive evidence of insanity; in a free-thinker it would be presumptive evidence of nothing. The individual is the proper means of comparison, not different races, as proposed by some solicitors of life insurance companies. Any act which is in full consonance with an individual's circumstances and education and surroundings, cannot *per se* be regarded as an insane or sane act; it has a negative value only. The issue of suicide raised in the Dwight case, and made the main issue, led to a waste of time and glorified "experts" who were hitherto unknown. As gleaned from very conflicting evidence, the facts of the case are as follows: Col. Dwight, a man of prudent habits, suddenly became addicted to extravagant speculations, evidently engendered by the existence of stupid delusions of grandeur. He, at the same time, presented evidence of organic brain disease. These speculations had almost reduced him to bankruptcy, when he suddenly insured his life for \$300,000 in various life insurance companies, dying, after one premium had been paid, his friends claimed, from the effects of a congestive chill conjoined with an overdose of morphine. The companies claimed that the Colonel committed suicide by strangulation. On autopsy, old and recent pachymeningitis with adhesions to the surface of the brain were found. The abdominal organs presented evidences of having been the seat of some malarial disease. There was noticed on the neck a peculiar mark which resembled that of a rope, but might have been produced by a tight necktie. To the alienist, the history above given points to the existence of paretic dementia at a period prior to the time the Colonel first entered into these wild speculations. Under such circumstances the question naturally arises, whether policies of insurance would have been secured by a paretic dement.

What is paretic dementia? It is a very well marked mental affection, easily diagnosed by a trained observer, but readily escaping the notice of laymen and the average untrained physician.

Two ex-commission merchants entered into a partnership involving several million dollars. A gambler won millions from his fellow-patients, and based his delusions on theirs. One patient,

if corrected about his delusions, would call on a mysterious double for confirmation, and then answer in the capacity of this double himself. The patient, while given to extravagant ideas of wealth, may be able to give true accounts of his pecuniary circumstances if kept to the point by leading questions.

The paretic dement is very apt to accept plans and schemes which look alluring; he is only able to see it from this standpoint, and everything which tends in any way to exalt his importance is seized upon by him. An apt illustration, and one which bears upon the subject under discussion, is the following case reported by Legrand du Saulle.* A physician well known in science, had had for more than nine years an insurance of \$20,000 on his life. He suddenly gave unequivocal evidences of mental impairment, went and came rapidly, and wrote and spoke a great deal. He had an exaggerated opinion of his labors, vaunted his success in practice, and boasted of his professional ability. In one of his walks he accidentally met the president of the company in which his life was insured. After a long conversation, Dr. Blank said that his life was assured for an insignificant sum, and that he had resolved to increase the amount to \$100,000. He was referred to the proper authorities, who consented. The policy was prepared, and all that was needed to complete the assurance was a receipt for the same. The agent, who was ready to deliver the policy on the signature of the receipt, suddenly noticed, just as the doctor was about to sign this, that the latter talked rather freely and loudly. Suspecting intoxication, he put off the delivery of the policy until Dr. Blank should become sober, claiming to have forgotten some important formality. The following day the physician was sent to an hospital for the insane, where he died in six months from paretic dementia. The company paid the \$20,000 to his widow, and esteemed itself happy that it did not have to pay the \$100,000 for which the husband had desired, in a fit of pathological temerity, to assure his life.

The appetite, as a rule, is good, even excellent, and the sudden appeasement of a seemingly good appetite in lunatics is sometimes, as has been shown by Dr. Workman, of value as a diag-

* *Gazette des Hopitaux*, Sept. 23, 1883.

nostic hint. The remissions are of interest from the medico-legal and diagnostic standpoint. They furnish one of the numerous stumbling blocks for the dilettante alienists who infest our courts. Sauze describes them as of three kinds: Those in which there is remission of the mental and physical symptoms simultaneously; those in which there is remission of the mental symptoms alone; finally, those in which there is remission of the motor symptoms alone. Mickle found the first two types common, but the third he had never observed. As has been pointed out by Baillays, there is, as a rule, an amelioration of the mental symptoms, the motor symptoms persisting. This has also been the experience of Bayle, Ferrus and Rodriguez. Lubimoff and Doutrebente have claimed that the remissions are sometimes complete restorations to health. Spitzka, Westphal, Mickle and myself have seen but very rarely such complete remissions. Doutrebente and myself have found the speech trouble least affected by the remission. Lunier has reported a case in which seven remissions occurred. The case was of twenty-seven years' duration. The disease has a very bad prognosis, both as to life and recovery, as it causes death in, as a rule, from three to four years. The gross lesions usually found on autopsy are those already described in the Dwight case.

Enough has already been detailed to illustrate the predominant characteristics of this disease. It will be obvious that the intellectual powers of a paretic dement are such as would make him an easy victim of the blandishments of any "sharp" insurance agent who would believe him, from his apparently excellent health, to be a good risk. Once started in the life insurance direction, the paretic dement would keep on, like Legrand du Saulle's patient, increasing the insurance on the life of the valuable citizen he believes himself to be, since the paretic has a tendency to adopt and extend ideas derived from others, as is shown by the case cited by Spitzka, of the paretic dement who, saved by his wife from a paretic suicide, proposed to erect a monument to her for saving the life of so valuable a citizen. It is curious how often this psychosis escapes observation by the non-alienist physician and laymen, when compared with the ease with which it is diagnosed by even asylum attendants familiar with it. The two cases

(already cited) as occurring in New York State were two cashiers of banks who had been paretic demented for at least two years, and had nearly brought the bank to a condition of insolvency by simple lack of attention to business; their mental condition had not been at all suspected by their business associates. In Chicago, a saloon-keeper with a paretic delusion of having inherited \$2,000,000, was interviewed by the reporters of every paper in the city, by none of whom was his mental condition suspected until his friends took measures to have him placed under treatment in the County Hospital for the Insane. There is, therefore, nothing antagonistic to the existence of paretic dementia in Col. Dwight, in the fact that he insured his life for the amount stated, and that his mental condition escaped observation from the business men of the companies. It may, however, be urged that the medical officers of the companies would detect the psychosis. He who knows how these medical officers are chosen—either from relatives, connections of officials of the companies, or by agents,* who tell the physician that “he must not be too strict;” or for political reasons to influence State legislatures, from medical politicians* who indulge in “graveyard insurance,” in which they get caught sometimes, but not as a rule, will scoff at the idea that men like these, who neither know nor care to learn anything of psychiatry, could be of value in the detection of insanity. Even in France, where the physicians are supposed to be better trained than the graduates of our diploma factories, the one case cited shows the value of non-alienist medical examination, and the same point is still more strongly illustrated by another case cited by Legrand du Saulle: Two brothers presented themselves at the office of a French alienist. The elder entered the office first, and asked the alienist to examine with care the patient brought him. “There seems to be nothing the matter with my brother,” said he, “but he is no longer the same.” The physician, after a long examination, said, “Your brother is in the initial stages of paretic dementia.” Explanations were then given, and the prophecy made that the patient would die in three or four years. The following day an assurance of \$20,000 was

* Actual occurrences in Chicago.

placed on the life of the patient. Three years after, the brother pocketed this amount.

The first stage is usually ushered in by emotional excitement, generally of an expansive type. The patient is hilarious, perhaps even boisterous. He is likely to make extravagant purchases or lavish gifts. His memory is not unlikely to be capriciously defective. Carelessness in attire may suddenly present itself. On the other hand, the patient may suddenly become fastidious about the use of flashy attire. A patient in Chicago displayed this at his trial for insanity to such an extent as to be called the insane "dude."

The patient, as in cases observed by Hammond, Lélut, Bailarger, Parot, Billod, Brierre de Boismont, A. Sauze, Maudsley, Burman, Fabre, Darde, Mickle, and Voisin, may commit theft in a stupid manner. I have observed cases in which theft was the first obvious evidence of the patient's insanity, which was not recognized until he had been tried and condemned to the penitentiary. In a case which recently occurred in New York, a man who was first arrested for stealing flowers in open day and in presence of a large crowd, was upon examination found to be suffering from the initial stage of paretic dementia. Le Grand du Saulle has been called on to determine the mental status of many paretic demented the first observed symptom of whose disease was theft. If the patient be an officer in monetary trust, errors in his accounts leading to suspicions of embezzlement may occur. In most cases, as in two recently reported from New York, this is due to forgetfulness. Le Grand du Saulle reports the case of a cashier who suddenly became addicted to visiting places of ill-repute, neglected his accounts and embezzled money, displaying soon after evidences of the third stage of the disease.

Eroticism, varying from tendencies to form improper marriages up to the wildest lasciviousness, as in cases reported by Guislain, may make its appearance. Moreau (de Tours) says that the sentiment of love in its ideal sense is very often the first symptom of this affection; the genital excitement appearing later. The first tendency is often noticed in hitherto fanatically orthodox Jews who suddenly contract marriages with Christians. In a case cited by Le Grand du Saulle, a man suddenly married a

prostitute and legitimized, by acknowledgment according to the French law, her two children, dying soon after in an asylum. This sexual excitement may manifest itself in indecent exposure of person. I have observed the case of a hitherto respectable physician who suddenly indecently exposed his person; fined for this he immediately exposed it on leaving the court-room, and the fine was doubled, but he again repeated the offense. In consequence of this he was committed to prison, and on his release came to Chicago, where he was found to be a paretic dement, dying in the Cook County Hospital for the Insane.

Wild speculations may be suddenly entered into. In a case cited by Sankey, a paretic dement whose mental condition had been hitherto unsuspected suddenly rose in a meeting of stockholders of a concern on the point of bankruptcy and offered to purchase all the stock. In a case cited by Spitzka, a hair-dresser bought up all he could find of a certain shade of gray hair. The delusions which may occur at this time, as a rule, are expansive in character. The patient is immensely wealthy, rich or strong. One of my patients, who was a little less than five feet high, claimed an altitude of ten thousand feet and a corresponding breadth. He was placed next a paretic slightly taller, and on being asked if the latter was not taller than he, responded that he was, but replied in answer to the question how tall he (the first patient) was, "ten thousand feet." The patient, who claims to be King Brian Boru, will answer to the sobriquet of Michael Mahoney, and give the latter as his name in answer to a question to that effect. One of my patients who had been a merchant made a list of his property consisting of patents, among which was a receipt for clam chowder, this he valued at a billion, and the other thirty-three patents for watches and railroads at one hundred millions. One of Hammond's patients owned all the trout streams in the country. The patient confuses the day dream with the actual. The delusions shift and vary. The man who is worth \$1,000,000 to-day is worth fifty in ten minutes more. If contradicted, his allusions become exaggerated. The paretic dements, unlike the majority of the other insane, do not recognize the insanity of their co-invalids. In fact, one paretic dement often accepts another's delusions as a basis for his own. One

paretic dement in the New York City Asylum for the insane was going to secure an immense increase of capital by marrying his daughter to a fellow paretic dement.

In Germany a medical officer of a railway corporation stated the symptoms of paretic dementia, presented by a 43 year old man, were only changes due to old age.

Hanot* in a recent paper calls attention to the dangers life insurance companies are exposed to from this class of patients, who, as already stated, escape the diagnostic ability of the average insurance company physician, and it will be obvious that the average untrained physician is worthless in the detection of this psychosis. With all these facts before him, the alienist will not hesitate to say that Col. Dwight was a paretic dement when he effected the insurance on his life. Whether he committed suicide or not, is foreign to the real question in the case. Is an assurance effected on the life of the paretic dement by himself or his relatives, in good faith, binding on the company making such assurance? The Supreme Court of Iowa* has decided that persons of unsound mind are to be held bound by an executed contract or conveyance when the transaction is fair and reasonable, and in the ordinary course of business, and where the mental condition of the party is unknown to the second part, and the parties cannot be placed in *statu quo*. The converse of this necessarily follows: A paretic dement cannot be guilty of fraud, for fraud implies a knowledge of the true state of things, and of this knowledge the paretic dement is destitute. Col. Dwight effected an assurance on his life because he was a paretic dement. If contracts with the insane under the circumstances mentioned by the Iowa decision are binding, then his policies were binding on the companies. If the policies were binding on the companies, no suicide by him could vitiate them. It may be admitted that even assuming the truth of all the circumstances, it was an injustice to burden the companies with the results of the actions of an insane man. With the consequences of a law a judge has nothing to do; his duty is to declare what that law is, and the same holds good of a scientist and scientific truth.

*Northwestern Reporter, June 18, 1881.

*Annales d, Hygiene, 1883.

The companies were themselves to blame for accepting such a risk, a risk offered by the would-be policy holder in good faith. It may seem hard on the companies, but it would also be hard on the family of other paretic dements if they should, in consequence of the precedent set in this case, be deprived of the provision made for them. The life insurance companies use all means to detect fraud and to ascertain the value of risks. If such means prove insufficient, not through fraud of the policy holder, but through the incapacity of the companies' agents, the company should be held responsible. For these reasons, the present writer believes that the decision in the Dwight case was fully warranted, even supposing the deceased committed suicide. Another aspect of the case presents itself: Supposing Col. Dwight, a paretic dement, insured his life and then, with a paretic idea of smartness, committed suicide to compel the company to suffer for some imagined affront, or with the vague idea of making money for his friends, would his act vitiate his policy? Under the Iowa decision the writer believes not, but would not like to express an opinion of the abstract justice of such a decision; legally he believes the policy could not be declared void; however seemingly unjust its non-voidance, or rather the full requirements of all its provisions under the circumstances would be. The question simply resolves itself into this: Can a contract, which, *per se*, involves an element of risk, all means of diminishing which risk are supposed to be taken by one of the persons making the contract, be regarded as void because, without fraud on the part of the other person making the contract, the risk proves greater than was anticipated. Life assurance contracts are based on the theory that the company ascertain the exact condition as regards disease. If the assured have an ordinary physical disease, unknown to himself and the examiner, and die from such disease, the company is held bound to pay the amount of the policy. It would seem that the same rule should hold good in the case of a paretic dement. The present paper has been written simply to raise this question for discussion. The writer believes that the policy and stockholders suffered unjustly in the Dwight case from the "inventive stupidity of agents and medical officers, and from the legal advisers making a fight on the question of fraud,

where one should have been made on the question of contracts with the insane."

ARTICLE III.

CLINICAL AND PATHOLOGICAL REPORTS OF CASES OF INSANITY.

By S. V. CLEVENGER, M.D., Special Pathologist Cook County Insane Asylum.

Male case No. 317. Paretic Dementia. P. M., age 47; admitted Nov. 7, 1883; American; married; salesman. Delusions of grandeur; President of U. S., Son of God; hallucinations of sight; noisy; errabund; mother was "insane a short time," and died of heart-disease in 1878; father of "ulcer of leg." When 20 years old patient was in Indianapolis Asylum three months. He had been drinking hard previous to this. Last attack came on while hard at work; was furious; broke windows, etc. A large dose of fluid extract conium gave him a twenty-four hour sleep, which he needed badly, having been furibund night and day for some weeks. He awoke refreshed, and remained apparently in full possession of his faculties, quiet, gentlemanly, and free from delusions until the last of December, when remission gave place to excitement. The Trinity, Masonry and Politics afford him special topics. Is rapidly deteriorating. There is a characteristic proclivity in paretics to emphasize a great deal in the documents they are fond of writing. Here is a specimen: "I shall start out on a *Mission of Peace* taking for mottoes *Truth, Justice, Liberty*, and endeavor with all the *earnest vigor of mind and body* to *Preach the GOSPEL of FREEDOM throughout the U. S. ONE GOD OVER and AROUND and IN ALL (except a few devils)*. I believe WOMAN an ANGEL of MERCY. But I forget these are but the '*illusions*' of a maniac (?) '*Insane* (?) from overworked brain.' My employers and Dr. Spray say this, on but limited knowledge of the man they are now torturing by confining with sons of GOD de-

mented," and so on through quires of letters and proclamations he formerly wrote. Lately he is too demented to attempt writing much.

Male case No. 301. Paretic Dementia. Frank E., age 45; admitted Oct. 4, 1883; German; married; clerk. Errabund; verbigerative. Was about to sue city for thousands of dollars damages. Said his wife was crazy; tried to have her arrested. Talked to angels who told him he would be rich (evidences of hallucinations of sight and hearing). Imagined himself worth millions of dollars; said he felt well; general anæsthesia decided; blind in one eye; varicosities in popliteal space; general tremor, with ataxic gait; drank hard formerly, but not lately. Had suffered from sun-stroke and head injury—bayonet-cut in head during the war, after which delirious two months; mornings usually more manageable; violent toward night, when delusions related to old army matters; thinks he is a prisoner of war surrounded by rebels. Sings vociferously "Battle Cry of Freedom" and other old patriotic songs. Grew rapidly worse; filthy, and furor occurred oftener. Died Dec. 18, 1883. Autopsy next day; skull thin and elastic abnormally; hæmatoma auris left ear. Blood in brain light-colored. No adhesions except intermeningeal along superior longitudinal sinus where membrane showed spots of extravasation. Vascular stasis apex right temporal lobe and basilar aspect, also in middle of left temporal lobe at base. Extravasations upper posterior aspect left cerebellum about a month old, forming bloody cyst in arachnoid half an inch in circumference. General vascular engorgement entire upper surface of cerebrum; puncta vasculosa numerous; ventricular endyma normal; cerebellum weight 6 ozs.; isthmus $1\frac{1}{4}$ oz.; left cerebrum 17 ozs.; right cerebrum $17\frac{3}{4}$ ozs. Total, 42 ounces.

Female case No. 165. Recurrent Mania. Ella A., age 43; Norwegian; widow; admitted May 5, 1882. Delusions of persecution, with optic and auditory hallucinations; furor every two or three months; father died of scarlatina at age of 33; mother died aged 72 years. When her menses began she was insane six months. A remission of five years followed, during which she married a drunkard who abused and neglected her. After birth of son, who is now 20 years of age, became insane again and was

sent to Christiania Asylum, where she remained as a patient nine and a half years, and after remission of insanity was employed as an attendant. She and her son embarked for America in 1881, and the excitement of travel brought on third attack. In August, 1883, had an attack of typhoid fever in asylum, from which she convalesced by Dec. 15, 1883. During the height of this disease her furor appeared in a modified form, and the attendants could recognize the old incoherent ravings, but her weakness prevented their full expression. Jan. 1, 1884, noisy, destructive, singing, the past month; growing quieter till Feb. 2, 1884, when another outbreak of destructive fury appeared, but grew better daily, and is by the last of March quite rational, with a slight tinge of depression. She is very industrious during remissions, during which she talks rationally and realizes her condition. Is very fond of some of the ladies in the house, whom she recognizes and obeys, even in her greatest furor. May 3, 1884, is just recovering from a furibund attack.

Female case No. 168. Melancholia. Julia M., age 35; admitted May 17, 1882; Irish; married. Talks quietly but constantly on religious subjects to imaginary persons. Had been previously in poor health from nursing large child 10 months old. Parents died in middle life. Dec., 1883, improving rapidly; talks rationally; discharged recovered May 8, 1884.

Male case No. 97. Chronic Alcoholic Insanity. Martin H., age 40; admitted Feb. 18, 1882; Irish; married; night watchman; suicidal; delusions of persecution; says people tried to kill him, so he would kill himself, and save them the trouble; shot himself in breast; improved for some weeks after; sleeps restlessly; has large lupus erythematosus on nose, originated November, 1883; right malar region to left malar; ectropium induced by it in right eye; insanity accelerated by burglars having entered a store he watched. An ointment of hydrargyric nitrate, applied in March, 1884, rapidly changed the appearance of the lupus for the better. Erysipelas followed, abating in April.

Male case No. 331. Katatonia. R. H., age 24; admitted Dec. 13, 1883. American-German; single; salesman; had been gradually growing annoying, errabund, and eccentric for years, appearing to tend toward hebephrenia; committed many

improprieties; last summer much worse, and drank hard. Jan. 9, 1884, hysteroidal convulsions followed stagy behavior; then began cataleptoidal stage, during which his pulse was feeble; temperature subnormal; lay abed with eyes rolled up, but semi-conscious; winks, and has waxy mobility. Feb. 4, more difficult to rouse; some oozing of saliva from corners of mouth. Feb. 7, gradually emerged from stupor, and broke a window; maniacal stage began Feb. 8; cannot be kept in bed; sleepless. Feb. 14, quieter; remains abed; eats and sleeps well. Feb. 16, still violent; strikes patients. Feb. 18, quieter, Feb. 20, emaciated; stupid; talks incoherently; noisy at night. Feb. 25, fever began. March 3, quarrelsome; sleeps well, and is growing fat (of bad prognosis). March 15, attempted to strike superintendent, and uses vile language. Excitement gradually merging into sullen melancholia by May, 1884.

Male case No. 332. Primary Confusional Insanity. Wm. I. M., age 25; admitted Dec. 20, 1883; American; single; salesman. In Sept., 1880, was in Oakland, California, Asylum for awhile after a spree. Upon this occasion exhibited peculiarities of primary confusional insanity rather than those of acute alcoholic, although the cause was a protracted debauch. Restless; incoherent; talked of betting on the white horse; would repeat questions asked him; talked of headache occasionally, and rambled something as follows: "White horse; there he is; didn't get there; get up; hello; yesterday; bet your life; where did he go; he has a bad eye; look out; let's take a drink." Jan. 7, recovered his mind suddenly. The last he remembers is being in the Union Depot, and when he became sane thought he was still there, and began to wonder at people sitting around with hats off and some without coats. The time he was insane is completely blotted from his memory. Sent to his father in Iowa in custody of friends Feb. 4, 1884.

Male case No. 348. Melancholia. M. T., age 29; admitted Jan. 31, 1884. Italian; single; statuary; delusions of persecution; suicidal; had been working in terra cotta factory exposed to great heat. In the same room here with him was male case No. 123, from whom he soon imbibed the notion that he too was to be hanged, affording the *folie a deux*, or communicated

delusion, to which French alienists first called attention. This sometimes runs through a family. In 1879, three insane sisters agreed to hang themselves, having identical delusions of persecution, and two of them succeeded in committing suicide at their residence on Langley avenue near 39th street, in Chicago. There was an undoubted teratological defect in these sisters. *Folie a deux* is not uncommon; nearly every asylum affords one or more cases.

Female case No. 180. Melancholia. Kate G., age 25; Irish; domestic; married; suicidal; June 3, 1883, escaped vigilance, and sprang through elevator door, falling four stories, comminuting left tibia four inches and dislocating both ankles. Dec. 31, 1883; confined to bed; recovering from injuries slowly; talks rationally, except in persisting in her suicidal desires; says it is only a question of time when she will succeed in killing herself.

Female case No. 181. Hebephrenia. Theresa S., age 20; German; domestic; single. Noisy, destructive, untidy; laughs sillily at times, incoherent; said to have become insane when menses stopped. Under treatment the flow was reestablished, but no improvement in mind occurred.

Female case No. 182. Mania. Ann D., age 40; Canadian; seamstress. Admitted July 27, 1882. Fancies that she is wealthy, and that her sister cheats her. Given to lying about everyone. Delusions of persecution. Verbigerative, incoherent, harmless; scolds; not destructive; lazy, but tidy. Father died through accident when aged 60; mother failed in health after climacteric, and died aged 58. Patient's menses stopped three years before admission, and she began to be suspicious and melancholy, followed by persecutory delusions and fear of poisoning.

Female case No. 176. Epileptic insanity. Nellie McC., age 30; American; married. Admitted June 29, 1882. Between paroxysms works in sewing room. What is known as the psychic equivalent appears in her case, for example, she often has furor lasting two days and nights, during which she fights. Dec. 30, 1883, fell to floor; mouth twisted to one side the only convulsive movements noticeable; became silly afterwards for a few hours, but went to work as usual, and mind cleared up till Feb. 7, 1884,

when an outbreak of fury occurred. The furor taking the place of the epilepsy constitutes the equivalence, or occasional larvated form of that disease. She has four children, the youngest born in 1880. Husband first became aware of her insanity when, one morning, he was awakened by her beating him in the face with a slipper. She is wholly unconscious of these acts, and insists upon there being a mistake. Her demeanor between attacks is quite gentle. Naturally industrious.

Female case No. 170. Melancholia. Ida L., age 32; German Jewess; single. Always apprehensive that something terrible is about to occur. In 1866 was in Hartford, Conn., asylum two years; 1870 two years more in same asylum. Her sister committed suicide a year ago over a love affair. When Ida's insanity re-appeared she tried to drown an infant sister in a tub, explaining it was better they should all die. Says she cannot understand how any one could wish to live. Talks rationally, and has ladylike manners. Talks and sings in her sleep so loudly she has to be often awakened by night watch. Feb. 8, 1884, transferred to private asylum.

Female case No. 169. Mania. Paulina H., age 34; Swede; married. Hallucinations of hearing; thinks the sun and stars dictate to her; quiet usually, and talks coherently; has been neuralgic; flushes easily if spoken to suddenly. Opium and alcohol addiction alleged causes of her insanity.

Female case No. 166. Mania. Annie M., age 38; Irish; single; admitted May 11, 1882. Seven years insane; hallucinations of sight; sees dead relatives; quiet; talks on religious subjects incoherently if addressed; furor about every third month, when she throws things about, but quiets quickly. Amenorrhœa, costiveness, and dysmenorrhœa. Father died of cholera, and mother of some form of heart-disease. Patient was always self-willed. A cousin was insane after childbirth, and recovered after a barn adjoining house had burned. Annie has suffered from painful menstruation since 18 years of age, when catamenia began.

Female case No. 105. Mania. T. P., age 33; German; married; admitted Jan. 28, 1880. Frequent furor, lately somewhat more peaceable; extremely jealous of her husband; accuses

nearly every female of trying to take him from her; was weakly on admission, but health improved later; has dysmenorrhœa and scanty menses. Sister in Jacksonville asylum incurable, exciting cause in that case alleged to be death of children.

Female case No. 103. Terminal Dementia. Florence B., age 27; American; married; admitted Sept. 17, 1879. Usually sits bent forward, with head resting in right hand and eyes closed, occasionally starts up with incoherent exclamation. At the entertainments given in the asylum, she is noticeable as an excellent dancer, always looks neat, but this is more owing to attendants' than patient's care. Before and after menses, has monthly furor, during which she is stubborn and fights, but not noisy. Insanity said to be hereditary. She had six children in seven years, with other unusual domestic trouble.

Some Continental and English asylums would classify this case among chronic puerperal, but Krafft-Ebing has indicated the inappropriateness of so doing. Puerperal cases either recover or pass to secondary confusional, and then terminal dementia, as do the other psychoses.

Female case No. 88. Secondary Confusional Insanity. Julia H., age 46; Irish; married; admitted Oct. 10, 1870. Noisy, constantly prays, sings, and blesses everyone; sometimes belligerent. Her mother was confined after a fright at seventh month of gestation when Julia was born. General health, never very good. She is the mother of nine children, one of whom suffers from coxalgia; since youngest child was born began to "act strangely," constantly going to church and remaining till expelled; depressing delusions then began; attempted suicide by strangulation. Says that drunkards are possessed by the devil, which is about the only fixed idea to which she clings.

Female case No. 52. Agnes S., age 51; Bohemian; married; admitted March 30, 1876; early history not obtained; was insomnolent, with occasional attacks of dizziness and slight frenzy; usually very pleasant and rational; pulsation of left carotid artery visible from twenty feet away; cervical vessels generally dilated; suffered intensely toward close of her life; she died at midnight of August 12, 1883. Autopsy next day revealed liver enlarged

and congested; lungs emphysematous and melanotic. Hypertrophied heart measured 14 inches in circumference at auriculo-ventricular junction, 7 inches from apex to base; outer part fatty; weight with 2 inches of aorta, 24 ounces; aorta full of calcareous plates; arterial atheroma general.

Her physical condition rendered hospital treatment necessary, but no especial psychosis need be erected to fit her case, beyond recognizing the occasional delirium.

Female case No. 30. Secondary Confusional Insanity. Jeanette W., age 24; American; actress; single; admitted March 8, 1873; went by stage name of Capitola Delzell for some years until real name ascertained; she is over usual female height, with a stately figure, and evidently was a beautiful woman. During the day she engages in light housework, has little to say to anyone, is trusted to go about the building, attends to what she is directed to do quite well, but her ideas are otherwise foggy, and memory impaired. She can communicate her desires readily enough in short sentences, but from the blank stare of her eyes and occasional mutterings and incoherent addresses to invisibles, she is doubtless hallucinated. Rather reticent by day, but about two nights every week she is furious, swears, scolds and hammers on her room door, declaring that some one tries to break into her room and that her side is cut open.

Male case No. 20. Secondary Confusional Insanity. Charles E., age 27; admitted Jan. 11, 1873; American; printer; Protestant; single. Became insane at puberty with the usual silliness and occasional destructiveness of hebephrenia, many of the peculiarities of which he still preserves. Destroys his clothing, chews scraps of paper and rags, mimics others, and has very clownish manners; constantly in motion, but not belligerent; is mischievous to an extreme. Has three brothers insane, and it is reported that other members of his family are also insane, also that only one of the family living is sane, a sister, who visited him in Nov., 1882. He recognized her, and talked of old times, wept, and showed more evidences of latent rationality, than ever before or since, while here. Sister said patient was in the Union Army, and suddenly became insane at battle of Vicksburg. His father, who was at one time the Governor of an adjoining State,

died suddenly after severe exertion, supposed apoplexy. Mother died from some form of heart disease. Patient has sleepy, stupid periods monthly, lasting about a week.

Male case No. 40. Katatonia. Adolph C., age 28; admitted Feb. 25, 1877; German; Hebrew; single; tanner. Slight catalepsy merged into stupor once in 3 months, comes on suddenly over night, recovers from it slowly, then fairly intelligent and pleasant; furor appears suddenly, lasting a week or ten days. Last furibund attack Feb. 7, 1884.

Male case No. 42. Epileptic Insanity. Charles C.; admitted April 26, 1877; age 20; Irish; Protestant; single; patternmaker. Insane eight months before admission; beginning of epilepsy unknown; exhibits mental hebetude; never attempted mischief; is unconscious a little while after paroxysms, which appear daily, often three or four attacks in twenty-four hours.

In many cases of insanity complicated with epilepsy, after terminal dementia has been reached, as in this case, the epileptic paroxysms cease altogether. In this instance the dementia is not profound, but the epilepsy persists. The varying phases of this form of insanity are well worthy of deep study, as offering a probable solution of much that is now unknown in cerebro-pathology and epilepsy. Any asylum official who will carefully record all he can gather relating to his epileptics, will be able to make some valuable deductions in time.

Male case No. 48. Chronic Alcoholic Insanity. John A., age 22; admitted March 12, 1870. Had been on a protracted debauch before admission. Is now stupid, amnesic, inclined to mutism; sleeps fairly well; tongue tremulous; pulse quick and compressible; heart's action violent; fairly nourished; complains of sickness in stomach and head; tries to escape; troublesome. Has idle, obstinate periods about once or twice yearly, when he refuses to work. Is confused, erotic, and has hypochondriacal delusions; usually works on the farm.

Male case No. 57. Secondary Confusional Insanity. Mortimore McC., age 50; admitted Nov. 1, 1878; Irish; married; laborer. Loquacious; pedantic; self-complacent; dresses neatly; says he owns \$4,000 property in Vermont, imagines himself a

great admiral and talks much of naval fights; was two years in Elgin asylum before admission here. Had delusions of persecution and grandeur at home. Threatened daughter, but otherwise not homicidal or suicidal. Did not drink to excess; was struck on head when 20 years of age while trying to defend a woman from abusive husband. Injury apparent over posterior fontanelle; depression of bones, teeth defective. Had typhoid fever when a young man. Since Dec., 1884, more excitable, increasing by March, 1884. Talks incoherently until questioned, and then answers connectedly.

Male case No. 59. Secondary Confusional Insanity. Daniel P., aged 32; admitted Jan. 26, 1879; American; married; bricklayer. Was in Andersonville prison during war, since when has complained of pain in chest, left side; two years afterwards began dizziness with night sweats, congestive attacks with cramps followed, for which he was treated with cod-liver oil. Mental trouble began with delusions of persecution five months before admission. Until Dec. 30, 1883, worked in asylum kitchen, but tried to stab a fellow-patient and was, since then, kept on ward. No heredity. Delusions of grandeur. Imagined he knew more than any one in the world, owned everything, and could scoop up diamonds from his window sill. The present phases of his insanity indicate that paranoia was his primary defect.

Female case No. 162. Hysterical Insanity. Fanny F., age 21; admitted April 4, 1882; German; Hebrew; single. Incoherent, hysterical, lies on floor, generally sillier every other day; weakly. Irregular and painful menstruation. Aunt insane in this asylum.

Female case No. 153. Mania. Elizabeth G., age 50; admitted Jan. 14, 1882; German; married. Insane two months before admission while convalescing from attack of variola. Has a brother insane in Germany. Imagines she is rich and has other expansive delusions; harmless; no persecutory delusions; sighs and talks incoherently at times, generally quiet, neat; works on ward, keeps her head bound around with handkerchief, for, she says, her head aches. Last attack of furor Feb. 21, 1884.

Female case No. 151. Terminal Dementia. Maggie W., age 39; Pole; single; domestic. Last admission Dec. 1, 1881, previously here three times since 1877. Began as melancholia with delusions of persecution, and sometimes hallucinations of sight. Complained much of headache. Mother died of "dropsy." Patient had been working hard and caught a severe cold. Nostalgia and her mother's death preyed upon her mind greatly.

Female case No. 149. Epileptic Insanity. Belle G., age 14; admitted Oct. 20, 1881; American Celtic; single. Epileptic every two or four months since 5 years of age. Talkative before or after paroxysms, usually before. Between attacks grows haggard and old-looking; reticent. Once for 24 hours last year, spit froth all over her room continuously. Epilepsy said to have originated through a fright. Is rendered stupid and more childish after each paroxysm. Feb. 7, 1884, epilepsy. Feb. 10, silly, obtrusive; twists face to left side in talking. Feb. 16, succession of convulsions past three days. Feb. 27, one attack. Recurrences often in March and April. May, 1884, more demented.

Female case No. 148. Secondary Confusional Insanity. Ida M., age 36; admitted Sept. 29, 1881; German; married. Four children, youngest 7 years old, after birth of which she became insane, hence originally puerperal insanity, which has advanced to the terminal condition of secondary confusional. Was at first extremely furibund and dangerous, but began with raptus melancholicus (the terrorized fury of melancholia), sitophobic, with other delusions of persecution. Formerly at Elgin asylum, and has had a previous attack. Heredity denied, but her mother died of nostalgia, which does not support the claim. Patient sews; cries occasionally because detained here. Scolds about domestic affairs, pins papers to her hair, and otherwise shows progress toward terminal dementia.

Female case No. 133. Secondary Confusional Insanity. Louise H., age 44; admitted March 31, 1881; German; domestic; widow. Imagines she is rich at times. Incoherent; cheerful usually, but scolds if opposed and talks vilely; idle; was in poor health upon admission. Mother died aged 73, with "enlarged liver." Father living and healthy. Patient had previous attacks, two

or three in last 15 years, beginning with "stomach cramps," following business trouble. Lost property through law-suit. Had eleven children, one of whom at least is advanced in phthisis pulmonalis. Her insanity began with violent furor.

Female case No. 132. Hypomania. Maria B. N., age 55; admitted March 24, 1881; Alsatian; married; strong and stout. "Father slightly insane after a law-suit with brother." Great chatterer and scolder. Has a very pleasant voice and sings much, but scolds more, not angrily, but as though jesting. Fond of playing pranks upon her fellow-patients. Is very jolly, but tiresome withal, for her exuberance lasts from morning to night, and from one year's end to the other. Delights in being entrusted with keeping order upon the ward, and is an efficient worker.

Female case No. 131. Secondary Confusional from mania in puerperio. Mary C., age 29; admitted Feb. 6, 1881; Irish; married. Grandmother died in insane asylum in Ireland. Insanity began with depression when child was four months old, but rose to furor soon afterward. Has grandiose delusions; talks to visible and invisible people about the wealth and respectability of her people; maintains a haughty bearing, and makes faces at all around her. Irritable always, and obtrusive, but not destructive or otherwise offensive.

Female case No. 115. Mania. Hannah B., age 37; admitted Aug. 25, 1880; Irish; married. Verbigerative; incoherent; sleepless; delusions of persecution; talks vilely when furibund; at other times is fairly coherent. Says when 13 years old was struck on head with a skillet, and three days after became insane, and was taken to an asylum in Ireland. Verdict states her insanity as hereditary, but does not mention source of information.

Female case No. 114. Terminal Dementia. Eunice S., age 50; admitted June 17, 1880; American Celtic; married. Sleepless; neat habits; imagines her husband is coming for her daily; amnesic; cannot tell people apart; no furor, but objects and squabbles when being bathed. Domestic trouble alleged cause of insanity, which began as melancholia. Her menses were irregular six years before admission, and about the time of appearance of melancholia, she expectorated blood for a day each month.

Male case No 67. Paretic Dementia. Joseph Le V., age 33; admitted Feb. 5, 1880. Pupils irregularly dilated; speech and gait ataxic; general anæmia. Verdict alleges a hereditary cause of insanity. Was filthy and covered with vermin upon admission. Ataxia increased by March 5, 1880, and by last of September, 1880, was quite demented, in which condition he has remained latterly, confined to bed.

Male case No. 65. Secondary Confusional Insanity. Wm. B. D., age 22; admitted Oct. 9, 1879; American; clerk; single. No heredity; refused to speak; was bill clerk in a large wholesale liquor store in Chicago; drank to excess; discharged and taken to Utica, N. Y., Insane Asylum. Had syphilis in 1875. During 1880 worked a little on ward. March 1, 1881, filthy, eating his own excrement; decorates room with filth. Cacophonous; yells constantly "king crown, king three crown, mealy moe." Crosses his hands when he wishes to shake hands with any one. Not violent unless thwarted.

Male case No. 71. Epileptic Insanity. Daniel D., age 31; admitted Nov. 28, 1880. Very violent at first, less so latterly; head injured when 7 years old; left parietal region depressed. Recent epileptic seizures Jan. 1, 1884; Feb. 13, with furor following at night; Feb. 27, fell from bed in convulsion; Feb. 28, another attack, and one upon March 15, 1884.

Male case No. 86. Secondary Confusional Insanity. Jas. D., age 42; admitted July 28, 1881; Irish; married. Seven years insane before admission; expansive delusions; quiet; fixed delusions of grandeur; thinks he is a great doctor and very wealthy; formerly furious; quiet now; thinks free-masons are after him. Was sunstruck, and sustained an injury to head in addition. Mother died of phthisis pulmonalis.

Male case No. 84. Epileptic Insanity. August S., age 24; admitted April 22, 1881; German; single. Five to ten epileptic seizures daily, with a remission of two weeks or thereabouts. Irritable after fits; threatens suicide; attacked brother-in-law; works during remissions. Condition after attacks varies, often may be demented or irritable. Feb. 18, 1884, attack, followed by severe vomiting; Feb. 24, 1884, violent furor after fit; tried to strike and bite attendant 48 hours afterward.

Male case No. 74. Mania. Hubbard S., age 25; admitted Dec. 16, 1880; laborer; single. Was a convict in Joliet prison Feb. 2, 1870, and three years thereafter became insane. Unsystematized delusions, frequent furor, fights and tries to escape. Pyromaniacal. He set fire to this building three times before caught at it. Verdict states his imprisonment as cause of insanity, and this suggests the medico-legal points often involved in such cases. Paretics often commit the fights and other crimes in the beginning of their insanity, are sent to prison—the mental failure at this time not being easy to recognize—and when the insanity becomes gross enough to be noted by the prison physician, they are rejailed in asylums as rendered insane “through imprisonment.” Requisite knowledge of this disease at the outset would save many a family the odium of criminality alleged, where there was pure insanity instead. The history of this particular case is not well enough known to enable the statement that this patient was or was not insane before imprisonment. But, while the insane are often sent to the penitentiary and hanged for crime (recently a madman was carried to the gallows in New Jersey in a strait jacket), the contract system of leasing labor in penitentiaries causes insanity direct. On the Mooney trial, in this State, Dr. Kiernan informs me, it was testified that twenty-five lunatics have been sent from the wire department of the Joliet prison within the recollection of one man. Dr. K. says the narrations on that trial sounded like those in Charles Reade’s “Never Too Late to Mend.”

Male case No. 88. Secondary Confusional Insanity. Edward C., aged 24; admitted Dec. 1, 1881; American Celtic; single. Arrested in Chicago and convicted for being principal in robbery and red pepper throwing operation with a negro and boy, wherein a large amount of money was taken. Was always bad, unreliable and treacherous; kicks, bites, strikes, and spits at every one; mutters in sleep. Father myopic and mentally “peculiar,” mother sane; sister blind; brother myopic. Rapidly passing to terminal dementia.

Male case No. 98. Paranoia. Daniel O’C., age 25; admitted Feb. 27, 1882; Irish; single; laborer. Scorbutic December, 1883; fancies he was mistaken for Guiteau; says he will not

leave the asylum till he has damages for false imprisonment. Usually quiet, but when excited talks of Guiteau trial. Says there is no law in the land to protect greenhorns like himself. Makes stump speeches favoring land-leaguers, and against the English.

Male case No. 99. Epileptic Insanity. John S., age 18; admitted March 1, 1883; American Celtic; single. Father died with phthisis pulmonalis. Patient, when 6 years of age, had severe pneumonia, followed by epilepsy, five to ten fits daily, with remissions of several weeks. After paroxysms very morose, and easily angered, then delusional and destructive; broke three doors and several windows once at home; threatened to kill step-father, whom he always disliked. During remissions is quiet and rational. Had a severe fall some years ago upon head, which confined him to bed awhile.

Male case No. 100. Secondary Confusional Insanity. John McN., age 36; admitted April 13, 1882; Irish; single; blacksmith. Suicidal; refused food; prayed loudly at first; talks coherently; usually quiet; refuses to work; gesticulates; has delusions of persecution; thought people would kill him. Hallucinations of sight and hearing. Saw and heard the dead walk, and talk. Was intemperate and religiously excited. Cousin on paternal side committed suicide while insane.

Male case No. 102. Epileptic Insanity. George M., age 22; admitted March 30, 1882; American; single; laborer. Sometimes has epilepsy, and no outbreak follows, but is very destructive when it does follow. Often has full "warning;" then asks attendant to take care of him, as he is about to have a fit. Has remissions of a month, but the least excitement, as a dance or dispute, causes them to recur. Ran away several times; once engaged to a farmer, who did not discover his malady for some time. Broke down door here once. Last attack March 10, 1884, with great furor following.

Male case No. 115. Chronic Alcoholic Insanity. Christian L., age 58; admitted July 13, 1882; German; married; farmer. Eye injured; says it was scalded out. Very intemperate. Tries to kill his wife every time he returns home. Talks rationally, but full of delusions concerning his wife.

A remarkable feature in alcoholic insanity is the usual delusion of marital infidelity. Wherever this delusion appears, the alcoholic causation may be safely presumed.

Male case No. 124. Chronic Alcoholic Insanity. E. R., age 62; admitted August 24, 1882; German; married; musician. Drank excessively, and became abusive and dangerous to relatives. Was leader of a musical society for ten years in Chicago, and a recognized proficient in music. Amnesia of senility; cannot remember recent events from one day to another, but remains an excellent musician. Has difficulty in recalling names of his pieces, but plays them when the tune is started for him. Has the delusions pertaining to marital matters common in inebriates advanced to this stage, and cannot be kept at home owing to his abusiveness to wife and children. At all times insists that he has been here only four or five weeks. Delights in teaching music and playing for amusement of patients. Is quite a favorite with everyone here, and it is difficult to realize how great his mental failure is, while his every day demeanor here is irreproachable. It is commonly observed that drunkards who may be demons abroad, exhibit latent excellencies of character during asylum sojourns which were little suspected before as existing at all in them.

Male case No. 135. Epileptic Insanity. Samuel A., age 32; admitted September 21, 1882; American; single; machinist. Pyromaniacal and suicidal. Often six to ten epileptic attacks nightly, followed by sullenness and violent furor. Has delusions of persecution and hallucinations. Liquor or tobacco injures him, by rendering epilepsy more frequent. Has been epileptic nine years. Attacks approaching indicated by his singing and noisiness; makes peculiar opisthotonic movements generally before fits. February 14, 1884, post and pre-epileptic furor; struck a patient with spittoon, upset tables and benches, and fought attendants. February 16, furor as before; broke window during night. March 3 and 18, 1884, furor followed epilepsy.

Male case No. 140. Mania. Jos. H., age 22; admitted October 19, 1882; single; carpenter. Has subjective sensations of having been struck, as he frequently whirls around and strikes others, claiming he was struck by them first. Complains of pains

in knee mornings; says he is rheumatic, and that his chest hurts him. During furor, bit an attendant's leg severely. Improving since December, 1883.

Male case No. 142. Secondary Confusional Insanity. John R., age 27; admitted October 26, 1882; German; single; maltster. Insanity began as mania one week before admission. Imagined the devil was after him; suicidal; incoherent; talked incessantly; quarrelsome when disturbed; hallucinations; complains that people accuse him of murder and arson, and that he is guiltless of either. Corpulent. Mother, grandmother, and sister insane.

Male case No. 144. Choreic Insanity. Frank G., age 20; admitted November 2, 1882; American; single; upholsterer. Chorea began four years before admission, gradually merging into insanity. Obstinate; costive; noisy at night; mischievous; destructive; talks foolishly. Father died of "paralysis." Patient was greatly benefited, physically, by Squibbs' fl. ext. conium, and was tried at home, but returned in four days, December, 1883. Is in constant motion, jerking body in all directions. Gradually growing demented.

Male case No. 307. Melancholia. Anton R., age 25; admitted October 25, 1883; Pole; married; gilder. Was afraid of everyone; thought doctors after him to cut him up. Liquor in small quantities affected him badly; suffered from headache. Stole \$170 from a saloon-keeper, and afterwards returned \$70 to police voluntarily. Mother also in asylum, female case No. 368. Some indications of plumbic toxæmia led to appropriate treatment, and he grew better mentally awhile, but relapsed.

Male case 154. Melancholia. Alex. H., age 42; admitted Dec. 8, 1882. American; married; railroad fireman. Delusions of persecution. Insanity began in 1879, when his youngest child was run over by cars and lost an arm. He was never intemperate. All his relatives nervous and excitable. His father died in Harrisburg, Pennsylvania, Asylum, in 1840; sister died in Jacksonville, Illinois, Asylum, in 1872.

Male case No. 161. Secondary Confusional Insanity. Wm. H., age 44; admitted Dec. 21, 1882; American; laborer; single. Preserves much of former maniacal disposition. Inces-

sant, incoherent, vile talker ; was in Stockton, California, Asylum. Constantly talks of A. G. Shurtleff, the superintendent of that place. Is the vilest-spoken male patient here, and not to be trusted with his fists, but is allowed occasionally to take a run outside without the least danger of his leaving. It is surprising to notice how much will power he can exert. At the Saturday evening dances he behaves himself, utters not a word, and evidently restrains himself by keeping his lower lip clenched between his teeth to prevent the usual torrent of abuse escaping him. His passage toward terminal dementia is slow but noticeable.

Male case No. 167. Senile Dementia. E. W. W., age 73; admitted Jan. 27, 1883. American; married; farmer. Usually mild-mannered and quiet; feeble with age. Occasionally hallucinated and incoherent. Assistant physician Thuemmler noted that his attacks of mild furor are preceded by patient's sticking his pants in his boots, and the doctor finds this an excellent signal for treatment.

Male case No. 173. Melancholia. Anton D., age 55; admitted Feb. 15, 1883; German; married; expressman. Poorly nourished. Relatives state that in 1879, burglars chloroformed him, and he never was the same man afterward. Tried many ways of self-destruction, even once by starvation. Delusions of persecution; thinks every one wishes to kill him; refuses to accept anything from his relatives, as he thinks they are starving.

Male case No. 197. Melancholia. John S., age 58; admitted April 12, 1883; English; married; clerk. Temperate. Sat up nights to watch his children, fearing something would befall them while they slept. Was wealthy at one time, and while actively employed, thought little of his misfortunes. Four months before his admission, lost situation, and melancholia followed; thought his food was poisoned. Tonics, laxatives, and at night sleeping potion administered; gradually recovered, and discharged August 7, 1883.

Male case No. 132. Mania. C. K., age 43; admitted June 7, 1883; German; married; commerce; insane one month before admission. Thought he saw ships and sailors, drew marine sketches; mind reverted to his sailor days. Was overworked and had business trouble; had always been kind to wife before, but

turned against her while insane ; struck her in face in December, 1883, during a visit she paid him. February, 1884, began to recover, and March 17, 1884, sent home apparently recovered.

Male case No. 242. Mania. Fred. P., age 60 ; admitted June 28, 1883 ; German ; married ; tailor. Was arrested in 1870 for some trivial matter, and became maniacal in jail. Had been intemperate ; tried to set fire to his son and to kill his other two sons. Furor recurred about monthly, lasting one or two days. During rémissions pleasant and jocose, but easily excited. Ran in streets when furibund. People made fun of him, and saloon-keepers dosed him with swill beer and filth. Died July 6, 1883. No autopsy allowed.

Male case No. 272. Acute Alcoholic Insanity. Wm. H., age 40 ; admitted Aug. 9, 1883 ; Norse ; widower ; cooper. The cooper for whom he worked noticed his face flushed and that he appeared confused. Said he was waiting for a man ; trembled violently. Discharged recovered Sept. 16, 1883.

Male case No. 277. Mania. James F., age 25 ; admitted Aug. 16, 1883 ; American ; married ; laborer. Insanity began October, 1882. Over-mental strain alleged cause. Delusions of grandeur and persecution ; hallucinations of vision and hearing ; very jealous of wife. Furor every two or three weeks ; head cut by bruises right parietal region and over top of frontal region. Father irritable ; mother insane since 1878 ; sister in Wisconsin Insane Asylum. Wrote a letter to Gen. Phil Sheridan, asking him to take him hence.

Male case No. 224. Paranoëa. Christian S., age 50 ; admitted May 31, 1883 ; German ; farmer ; quiet and industrious. It required considerable questioning to bring out his delusions. He thinks a certain neighbor bewitched him, and it is necessary for him to fire off a gun once in a while to break the spell cast over him. His otherwise apparent sanity led to the issue of a *habeas corpus*. In court Dr. Thuemmler was asked why the patient had not been discharged from the asylum. The doctor

replied, because the medical men did not wish to take the responsibility of turning loose a monomaniac, who might do harm. When asked if he thought the patient's delusion might lead him to shoot his neighbor, Dr. T. said he could tell as little about that as the judge could, and that as to allowing him his liberty, it was for the judge to decide the advisability of so doing. The superintendent of the asylum was not, under the circumstances, willing to assume the risk of such discharge. He was remanded to the asylum. He thinks forty-two different witches crawl down his throat, and that ghosts talk to him. Upper part of nose deeply indented by kick from a horse when patient was a boy. Frontal injuries, in my observation, are frequently associated with paraneæa.

Male case No. 69. Paraneæa. Anton N., age 49; admitted July 8, 1880; Poland; cabinet-maker. Is very ingenious at his trade; has made for himself a full set of tools used in his occupation from odd pieces of wood, iron, glass, tin, etc.; makes very tasty cabinet work of all kinds. I have a very handsome frame made by him to hold panes of glass as a cover for my laboratory microscope. The joinery is perfect. When this patient is "off," he yells defiance at the devil. He cut a dragon-winged image of a female from wood and suspended in his window to bother Lucifer "with a picture of his wife." I asked him once if he would not like to be at liberty. "Yes," he replied, "I would be happy if I could go to Chicago to kill two men there who are in league with the devil against me." Noticing the facial anæmia during his paroxysms, they can usually be averted by stimulants.

Male case No. 212. Paraneæa. Gottlieb H., age 40; admitted May 10, 1883; German; painter; single. Imagines temperance people and Lutheran priests persecute and follow him; well-behaved and good-natured; assistant to asylum painter; verbigerative when talked to; anæmic at times; complains of occasional headaches; frontal transverse rugæ well marked, particularly when talking. He says both his parents are in an insane asylum in Eslingen, Germany. He carries scraps of newspapers detailing an attack he made upon a Mr. C. H. Peck, of Atchison, Kansas,

in 1880. Says he was struck by lightning in September, 1880, but was not hurt; felt only a little burning sensation in his stomach. A photograph of himself, which he says was taken in January, 1883, resembles him but little now. The picture shows a man of ordinarily intelligent appearance. He must have deteriorated in features rapidly. Has transitory hallucinations, and desire to get justice for having been sent here. Answers description of querulous monomania, "*Querulanten-Wahnsinn*" of the Germans.

Male case No. 289. Melancholia. J. S., age 30; admitted Sept. 13, 1883; German; married; printer. Sensational case published in Chicago *Tribune* Sept. 14, 1883. Fell in love with a young girl who lived with his wife. The feeling seems to have been reciprocated, for the young lady committed suicide, and both patient and his wife identified her body when taken from the lake. Later, patient attempted suicide in river. He had unsystematized delusions of persecution, with hallucinations of sight; thought he saw the young lady alive, and also many of his friends who had long been dead. His mind became clouded at the inquest of the young girl, and he walked about with a dazed, troubled expression. It was with difficulty he could be led to talk of anything but his misfortunes. Anæmia indicated tonics, and much was done to interest him in general matters. He was finally induced to read articles in *Zeitschrift für Psychiatrie* and other German medical journals, and seemed startled into recognizing cases similar to his own reported therein. By the last of September his mind had become decidedly clearer, and Oct. 14, 1883, he was discharged. Jan. 1, 1884, he called to convince us of his recovery. He is a compositor on a German paper. Says he is seldom depressed now, and when ideas of persecution arise he reasons himself out of them, recalling the instruction he received while here. The possession of a mental background which may be educated to withstand insane tendencies is an all-important feature in some forms of insanity; of course, in parietic dementia it avails nothing, but should be appealed to wherever hope exists.

ARTICLE IV.

THE REMOVAL OF NASO-PHARYNGEAL FIBROMATA BY THE GALVANO-CAUTERY, OR STEEL WIRE ÉCRASEUR. By E. FLETCHER INGALS, A.M.M.D., Chicago.

Naso-pharyngeal fibromata usually have their origin in the periosteum which covers that portion of the base of the skull forming the roof of the naso-pharynx.

These tumors may extend downward into the mouth, forward into the nasal cavity, or upward, perforating the cranium and pressing upon the brain.

When large, they not infrequently send off prolongations into the maxillary sinus, and in some cases the frontal and sphenoidal sinuses are involved, consequently in some instances great deformity of the face results.

Owing to the obstruction thus caused, respiration and deglutition may be seriously interfered with, and in consequence of the pressure, the senses of hearing, sight, and smell are more or less impaired.

The growths are hard to the touch, and are usually rounded, having a smooth surface, slightly lighter in color than the surrounding mucous membrane; sometimes, however, and particularly when the nasal cavities are involved, these tumors are lobulated in form.

Some of them grow slowly, but in other cases they increase in size with great rapidity; and, unfortunately they are quite liable to return after removal.

Aside from the symptoms already referred to in connection with the special senses, they may cause severe pain, frequent epistaxis, and constant catarrhal discharge. They eventually disturb the sleep and prevent the patient from taking sufficient food; exhaustion supervenes, and ultimately if not removed, they are liable to prove fatal.

Various forms of treatment, such as electrolysis, the local application of chemical agents, have been tried, but nothing short of a complete destruction of the growth by operative measures can give satisfactory results.

The operation usually recommended by surgeons, consists in

tearing or gouging out the tumor after access to it has been obtained, by removal of the hard and soft palate, or of the superior maxillary bone, the latter being the procedure generally resorted to; but within a few years rhinologists have demonstrated the practicability of a much safer operation, which has thus far been attended with better results than when the maxilla, or palate, has been removed.

This operation is performed with the galvano-cautery, or steel wire *écraseur*, the loop being passed through the nostrils in some cases, and in others through the mouth and up behind the soft palate.

Within the past two years I have operated on five cases of naso-pharyngeal tumors by this latter method, and with better results than could have been obtained by excision of a part or the whole of the superior maxillary bone.

In four of these cases over a year and a half have now elapsed since the last operation, as their histories will show. In the fifth the growth appeared microscopically of a semi-malignant type. It is not here reported, but the tumor has been removed, and is now growing again; however, owing to the patient's great improvement in health, and to the histories of two of the other four cases, which I have heard from lately, I do not despair of ultimately curing the patient.

CASE I.—Fibroma. In May, 1881, I operated upon the first case of this kind which had come under my observation.

The patient, J. W., *æt.* 21, stated that about twenty months previously he had contracted a severe cold, since when he had been unable to breathe through the right nostril, excepting with forced respiration, and then but slightly. The left nostril had also been occluded whenever he had a cold, but at other times it had been comparatively free.

Rhinoscopic examination revealed a large ovoid tumor blocking the right posterior naris and overlying about half of the left. With the galvano-cautery *écraseur* I removed the larger part of the growth and would have secured all, had not the current failed me so that I was obliged to readjust the wire. The bleeding prevented me from doing this perfectly.

Prof. I. N. Danforth, of Chicago, made a microscopic examina-

tion of the tumor, and pronounced it a small celled-sarcoma, the most benignant of the fibromata.

A few weeks later the remainder of the growth was perfectly removed by the galvano-cautery *écraseur*.

Sixteen months later I found a small tumor at the seat of the old growth, about the size of a hazel-nut. This I removed with Jarvis' *écraseur*.

At the present time, three years after the original operation, a small sessile swelling may be seen at the posterior end of the upper turbinated bone. This presents no point where the *écraseur* could be made to hold, and as it has enlarged very slowly, I have not attempted to cauterize it.

CASE II.—Fibroma. H. L., aged 19. Was brought me by my friend, Dr. F. E. Olney, of Warsaw, Ind. I found a large naso-pharyngeal growth, which presented slightly below the soft palate, and filled the naso-pharyngeal space.

It had been annoying him very much for twelve months; preventing nasal respiration and causing profuse discharges from the nose and pharynx. The tumor was so large that I found it impossible to pass Bellocq's canula or an Eustachian catheter through the nares; however, after much difficulty, I succeeded in passing a small, soft rubber catheter. In doing this, all excepting half an inch of the distal end of the catheter had been kept rigid by the stilet so that when pressure was made the flexible end insinuated itself between the growth and the palate and was finally forced into the pharynx and brought out through the mouth. A string was then attached to it and drawn back through the nose, by which means an elastic band was drawn through the naris to tie the soft palate forward; and subsequently a loop of platinum wire was drawn back through the naris into the mouth.

The loop was opened, and by patient manipulation for about three hours, it was carried up until it encircled the base of the tumor, close to the bone from which it sprang. The ends of the platinum wire were then passed through the tubes of an electrode which was forced back along them through the nose until the tumor was tightly ensnared.

The handle with which the conductors from the battery were

connected, was then attached, the platinum wires fixed to the ratchet and the current turned on; but I soon found that a short circuit was established through the metallic axle of the ratchet wheel, so that the pedicle could not be burned. I then removed the ratchet and attached the wire to a lead pencil, by means of which traction was made. The current then passed through the loop, heated the wire, and the pedicle was speedily cut and the growth ejected from the mouth.

Because of failure of the ratchet the base of the tumor was accidentally divided much quicker than I wished, and as a consequence profuse bleeding ensued; this, however, was checked in a short time by the insufflation of tannin behind the palate.

The tumor was slightly nodular in form, and measured one and one-half inches in its antero-posterior diameter, by one and three-fourths inches in its vertical diameter.

It had been cut off close to the basilar process of the occipital bone to which it had been attached by a pedicle three-quarters of an inch in diameter.

The patient returned to his home the same evening. The cut surface healed over promptly, and for two months he seemed perfectly well, but at the end of that time Dr. Olney noticed that the tumor was re-appearing. It grew rapidly for about two months, when it had attained about one-third its former size, since when it has remained stationary.

The patient's general health has been perfect for the last eighteen months, and there has been no increase in the size of the tumor, but it will be again removed as soon as the patient can spare the time, and then the stump will be thoroughly cauterized.

CASE III.—Fibroma. A charity patient. J. H., æt. 26, came to me during the latter part of the winter of 1882-83, complaining only of a slight cold. I noticed a peculiar lack of nasal resonance in his voice which directed my examination to the naso-pharynx, where I found a tumor about the size of a hickory-nut, which from its position and from the movements that could be given to it with a probe seemed to be attached to the upper portion of the posterior border of the vomer.

With a modification of Jarvis' *écraseur*, half an inch of the end

of which had been bent up at nearly a right angle, I passed a steel wire behind the palate and ensnared the tumor and cut it off.

The tumor presently dropped into the mouth and was ejected. It had the form of a flattened sphere, measuring one inch in its long diameter by one-half inch in thickness. Dr. E. P. Davis, of this city, examined the growth microscopically, and reported it almost wholly fibrous. Afterward a similar but smaller growth was detected in the posterior part of the left nasal cavity, which subsequently came down into the naso-pharynx. I made one attempt to catch it in the snare, but failing on the first trial, I was obliged to defer the operation for want of time, and the patient did not return.

CASE IV.—Fibro-Myxoma. A. P., æt. 32, machinist, came to my clinic at the Central Dispensary in December, 1882. He gave the following history: When two years of age his mother had noticed something growing in his nose, but nothing was done for it until he was fourteen years of age, when it was operated on by forceps, and a large mass removed.

Subsequently he was free from the trouble for several years, but at the age of nineteen it had returned so as to necessitate another operation.

From that time until about a year before coming to me he had experienced no difficulty in breathing through the nose.

Upon examination, I found a large growth completely filling the right nasal cavity, and closing the left by pressure; and causing considerable deformity of the nose.

It also passed back and filled about half the naso-pharynx.

After several futile attempts to tear away the anterior portion of this tumor with forceps, about a third of it was cut off with the galvano-cautery wire loop. Finally, with a modification of Jarvis' snare, all the growth was removed. In this case it was impossible to engage any considerable portion of the tumor at once, as the instrument could not be passed through the nose until most of the growth had been taken out; therefore, at each sitting, I removed two or three pieces about the size of filberts, and then allowed the patient to go. Dr. E. A. Davis found this to be a fibro-myxoma.

At the meeting of the American Laryngological Association

held in New York, in May, 1883, Dr. Rufus P. Lincoln presented three cases which he had operated upon successfully by the galvano-cautery *écraseur*. For the sake of comparison, he also gave a tabulated statement of the results of seventy-four operations for naso-pharyngeal tumors which he had found reported.

The statement which has been furnished me by Dr. Lincoln is substantially as follows :

The seventy-four operations were performed on fifty-eight patients.

Thirty-nine operations were done upon twenty-eight patients by section of the facial bones or lying open of cicatrices resulting from previous operations of the same character. Of these, in thirteen, the record ceased shortly after the operation, and the final results were unknown. Of the fifteen remaining, eight died from the operation, and in three others it nearly proved fatal, while in only four was there no return of the tumor within a year.

Seven operations were done on seven patients by scissors, knife or forceps. One of these died, five were lost sight of, or no subsequent report was made, and in only one are we told there was no recurrence within a year.

Two cases had been treated with injections of chloride of zinc, or cauterization by the same agent. In one the tumor returned, the other case was lost sight of. Three cases were treated by electrolysis. One did not recur within a year; the others disappeared. Of these forty cases, in twenty-one the history after the operation was incomplete, and probably not favorable to the operation.

Nine, nearly one-fourth of all the cases, or about one-half of those in whom the history was complete, died, and only seven remained well for one year.

Contrasting with these the cases operated upon by the ordinary *écraseur*, or ligation, we find that of eleven operated on none were fatal, two were lost sight of, and of those remaining there was no recurrence at the end of a year in four cases, which is a very much better showing than for the preceding operations.

Nine have been operated on by the galvano-cautery *écraseur*, and one by the actual cautery. None of them were fatal; two

were lost sight of, and six were well at the end of a year, results infinitely superior to those of any of the other methods.

The remarkable success of this form of treatment is supposed to have been due to thorough cauterization of the stumps of the tumors, which was practiced in several instances.

In my own cases, the stumps of the tumors have not been cauterized, but although there has been some new growth in the two still under observation, there has been no enlargement for over a year in one, and over two years in the other; and neither now gives the patient any discomfort.

In two others, occurring in dispensary patients, the disagreeable symptoms having been removed, it is probable that I will not see them again until the tumors have re-grown sufficiently to be annoying. One of these was cured at the time. In the other the operation was incomplete.

From my experience in these cases, I believe that either with the galvano-cautery or with the steel wire *écraseur* the great majority of these tumors may be completely removed, and, as has been shown by Dr. Lincoln, if their bases are thoroughly cauterized with a hot wire, they are not likely to recur. As illustrated by two of my cases, although they often recur the subsequent growth may be very small in comparison with the first, and after a short time it may become quiescent.

The results thus far are certainly in favor of this method of operating in most cases of naso-pharyngeal fibromata over that usually advised by surgeons. The advantages are, that this leaves no scar: the tumors are less likely to recur, and the risks to the patient are infinitely less.

ARTICLE V.

ON GELSEMIUM SEMPERVIRENS. By CHARLES GILBERT DAVIS, M.D., of Chicago.

The present advanced state of medical science is due in a great measure, if not entirely, to the recorded experience and observation of thinking men. If this be true, would it not be well if

all physicians engaged in the active practice of their profession, made a special endeavor to observe more closely and record more accurately the various symptoms manifested by the action of medicine on the human system. A neglect of this on the part of many physicians has given rise to what we may properly term the "school of skepticism." They disbelieve entirely in the action of medicine to relieve disease, and often, while manifesting a sublime indifference to the appeals of the poor sufferer before them to be relieved, go into ecstasies over the pathology of the case, and are plethoric with theories in regard to the ultimate nerve-cells or molecules wherein the disturbing action arises.

Be it understood, I cast no reflections upon scientific investigation in these directions, but the true office of the physician is to prevent, cure, or alleviate disease, and in proportion as he fails in this, he fails to fulfil his mission.

To-night I lay before you my recorded experience in regard to the action of a remedy which for a number of years has been under my observation.

Gelsemium sempervirens, commonly known as the wild, yellow, or Carolina jessamine, is indigenous to the United States, and is found growing in great abundance in the rich soil on the borders of streams near the sea coast, from Virginia to Louisiana. It was first described in 1640 by John Parkinson, who cultivated it in his garden. It has a climbing stem; opposite, lanceolate, dark-green leaves; and axillary clusters of bell-shaped, yellow, fragrant flowers, the perfume of which has been compared to that of the wall-flower. The root, the part used in medicine, is fibrous, and owes its medicinal action to the presence of an alkaloid, gelsemia. According to Eberle, the central woody portion of the root does not contain any alkaloid, and therefore the bark really contains the active medicinal properties. I have been closely observing the action of gelsemium on the human system for a number of years, and am convinced there is no article of equal merit in the materia medica which has received so little notice, and concerning which so little is known. The object of the present paper is not so much to discuss the numerous theories concerning its mode of action, as merely to give a synopsis of these theories, and then to

add my own testimony in regard to its therapeutic application, based upon personal experience and observation.

Some one has said that the medicinal action of this remedy was discovered by accident. A Southern gentleman who was sick with a fever, sent his colored servant into the garden to obtain the roots of a plant which he indicated, in order that he might prepare a decoction for himself and thus alleviate his disease. The servant made a mistake and obtained instead the roots of the yellow jessamine. The tea was prepared and drunk, however, and the patient breaking out into a profuse perspiration and recovering so soon from the fever, made inquiry as to what he had taken. He was so delighted with the result that he immediately recommended it to others who were similarly afflicted.

Gelsemium owes its medicinal action to the presence of an alkaloid, the active principle gelseminia, or gelsemia. A number of interesting experiments have been conducted by several observers in regard to the nature and action of this principle, the most conclusive of which are probably those by Professor T. G. Wormley. To him, undoubtedly, must be given the credit of having first isolated the alkaloid, and of having also demonstrated the presence of a new organic acid, which he designated gelseminic acid.

His process for obtaining the acid from the extract was as follows: "Concentrate the fluid extract on a water-bath to about one-eighth of its volume, and then add to the concentrated extract several times its volume in pure water, and allow the mixture to stand several hours, or at least until the supernatant liquid has become very nearly or altogether clear. By this treatment most of the resinous matter, held in solution by the alcohol originally present, will be separated. The mixture is then transferred to a filter, the solids well washed with water, and the filtrate thus obtained, together with the washings, concentrated on a water-bath to about the same volume the concentrated extract had prior to the addition of the pure water. The concentrated liquid, after filtration, if necessary, is acidulated with hydrochloric acid in the proportion of one drop of the pure acid for each fluid ounce of the fluid extract operated upon, then thoroughly agitated with about twice its volume of ether; after the liquids have completely sepa-

rated, the ethereal fluid is decanted and the aqueous liquid finally washed with about its own volume of ether.

"On allowing the united ethereal liquids thus obtained to evaporate spontaneously, the gelseminic acid will be left chiefly in the form of nearly colorless groups of crystals. By this method sixteen ounces of the fluid extract of gelsemium yielded about two grains and a quarter of pure gelseminic acid. It is a colorless, odorless, mostly tasteless solid, crystallized in groups or tufts of delicate needles; has strongly acid properties neutralizing bases and uniting with them to form salts which are generally sparingly soluble in water.

"*Gelsemia* may be extracted from the concentrated extract from which gelseminic acid has been extracted by ether, by rendering the liquid slightly alkaline with potash, and then repeatedly agitating it with chloroform, which will dissolve the alkaloid together with more or less foreign matter. For this purpose about two volumes of chloroform may at first be employed, the operation repeated with a similar quantity of the fluid, when finally the alkaline solution is washed with about its own volume of the liquid. The chloroform employed for these extractions is collected in a dish and evaporated at a very moderate temperature, when it will leave a hard, gum-like, yellowish or brownish-yellow residue. This is treated with a small quantity of water and the mixture slightly acidulated with hydrochloric acid, which will dissolve the alkaloid together with more or less foreign matter. This solution is filtered, and the filtrate concentrated to about one-sixteenth the volume of the original fluid extract operated upon. On now treating the concentrated liquid with slight excess of caustic potash, the alkaloid will be precipitated in the form of a more or less white deposit. This is collected on a filter, washed with a small quantity of pure water, then allowed to dry at the ordinary temperature." When further purified by being dissolved in acidulated water and again precipitated by caustic potash, it will appear in the form of a very hard, brittle, transparent mass. When pulverized it forms a nearly or altogether colorless powder.

As to the amount of the alkaloid found in any given quantity of the fluid extract, the only official preparation used, it has not

yet been definitely determined, but Wormley concluded from his experiments, approximately, that it existed to the extent of one grain of gelsemia to two and a half fluid ounces of the fluid extract.

Physiological Actions.—Investigations in regard to the action of the drug have been made by Ringer, Murrell, Ott, and Bartholow. Its various preparations have a narcotic odor and a bitter taste. The active principle, gelseminia, is so intensely bitter that its presence to the extent of one one-thousandth part by weight in solution can be readily detected. It is of a crystalloid nature, and when taken into the system is rapidly diffused into the blood. In regard to its action on the human system and also the lower animals, a number of interesting articles have been written. The most conclusive, however, are probably those experiments recorded by Prof. Bartholow. When administered in small quantities, sufficient to produce a sensible effect, it has a mild, soothing effect over the nervous system, manifested by mental quietude, a tendency to drooping of the eyelids, slight muscular relaxation, slowing of the pulse, and slight dilatation of the pupil; though Prof. Ringer says that this dilatation of the pupil is preceded by contraction. When the dose is much increased, the symptoms are all intensified; and we see manifested double vision, giddiness, pain in the forehead, increased paralysis of the levator palpebræ muscles, causing drooping of the eyelids; labored respiration from partial paralysis of the respiratory muscles; muscular weakness; and general sensibility much reduced. If the dose be still further increased, the symptoms are still more intensified, and we observe that the eyelids are entirely closed from complete paralysis of the levator palpebræ muscles; that the pupils are widely dilated, not responding to the action of the light; and that vision is entirely gone. Muscular paralysis is so complete that voluntary motion entirely ceases, respiration is labored, and the action of the heart becomes weak and intermittent. Consciousness is retained until near the period of death, when it is lost from carbonic acid poisoning, resulting from incomplete respiration. The action of the heart continues for some moments after respiration ceases. From these symptoms it is evident that the prime action of gelsemia is upon the nervous

system, and its action is such as to warrant us in classifying it as a cerebro-spinal depressant, acting principally upon the motor centers. Some little discussion has arisen as to whether its primary action is upon the peripheral extremities of the motor nerves, or directly upon the nerve center. I believe that Prof. Ringer entertained at one time the opinion that its main action was upon the extremities of motor and sensory nerves; but more recently he has entertained the views of Prof. Bartholow, based upon a number of interesting experiments upon warm and cold-blooded animals, that the action is directly on the spinal cord. The order of this action is, however, upon the motor and sensory columns of the cord reversed in cold and warm-blooded animals. In the former, the first effect is on the sensory center; and in the latter, the motor centers are first impressed. In the *Phila. Med. Times*, Vol. V, will be found an interesting account of elaborate investigations carried on by Dr. Ott, in which he arrives at conclusions similar to those of Prof. Bartholow. He intimates that gelsemium reduces the pulse by lessening the irritability of the excito-motor ganglia of the heart; and lessens arterial pressure by diminishing cardiac irritability and vasomotor tonus. He also, with Prof. Bartholow, concludes that it lowers the temperature. This last fact I consider one of great importance, having seen it verified in many febrile and inflammatory diseases. It would at first appear, from observing the action of gelsemium on the spinal cord, that it would be an efficient antidote to poisoning by strychnia; one excites to convulsions, while the other depresses to exhaustion. This theory, however, is not proven to be true by experiment. My own experiments on dogs have been conclusive in showing that it does not have the slightest influence in antidoting the effect of strychnia. On the contrary, I am inclined to believe that it facilitates or increases the action of strychnia. In order to arrive at a correct conclusion of the matter, I selected two dogs, weighing each within a fraction of ten pounds. To each of them I administered, at the same time, one-fifth of a grain of sulphate of strychnia hypodermically. Five minutes afterwards I gave one, to one-eighth of a grain of the alkaloid gelsemium in the form of a sulphate. In ten minutes from the time of the first injection

tion, convulsions appeared in the dog that had received both strychnia and gelsemia; while the effects were not noticed on the other till the end of thirteen minutes. In thirty minutes, the animal that had received both poisons was dead, while the other lived forty minutes. It was noticeable in the experiment that in the animal receiving both the strychnia and gelsemia, the convulsions appeared earlier, were far more violent and continuous, and that death resulted ten minutes earlier. I have repeated this experiment a number of times with almost unvarying results. These experiments have not been as complete and satisfactory in this direction as I could wish, but sufficient evidence is obtained to convince me that gelsemium is in no way antidotal to the effects of strychnia; and I am much inclined to believe that, owing to the relaxing effects upon the spinal cord when gelsemium is previously administered, the conditions are rendered more favorable for the action of strychnia, and consequently its effects are intensified.

As antagonistic to, and incompatible with, the effects of gelsemium, we may rely upon alcoholic and diffusible stimulants. Tannic acid and the caustic alkalies may be considered as chemically incompatible with it. As an illustration of the action of alcoholic stimulants in removing the depressing symptoms resulting from the administration of large doses of gelsemium, I may mention a case that came under my observation some three years ago. J. B., aged 45, had been afflicted with muscular rheumatism for a number of years. The muscles of the right side of the neck, particularly the sterno-cleido-mastoideus and a portion of the platysma-myoides, had become so much affected that the chin was tied down to the breast, and mastication and deglutition were performed with great difficulty. A condition of complete torticollis had ensued. In this condition he applied to me to be at least temporarily relieved from the unpleasant and indeed painful muscular contraction. I immediately put him on five-drop doses of the fluid extract of gelsemium, to be taken three times a day, with instructions to increase the size of the dose one drop every day. He had reached a dose of twenty drops, and not seeing any of the usual effects of such a dose, and finding but little relaxation of the affected muscles, I requested him to change his druggist, thinking that perhaps the druggist with whom he dealt

was not furnishing him with a reliable article. It is well known that there is occasionally a druggist who is no more infallible than the drugs he offers for sale to a too confiding public. Two hours after I had dismissed the patient from my office with this advice, he was brought back again by a policeman, who, finding him staggering on the street, had supposed him intoxicated. He showed to a very marked degree the effects of the remedy. The eyes were half closed, with inability to raise the upper lids, vision was obscured, and articulation was very indistinct, with general muscular relaxation manifested by a staggering gait, which so much resembled alcoholic intoxication as to well-nigh excuse the worthy officer, who supposed the patient to be under the influence of strong drink. A tablespoonful of brandy was immediately administered. In about fifteen minutes the patient spoke more distinctly, and expressed himself as much better. The same dose of the stimulant was repeated twice during an hour, at the expiration of which time the toxic symptoms had entirely disappeared, with the exception of a slight sense of drowsiness. This case not only serves to illustrate the antidotal action of alcoholic stimulants to the poisonous action of gelsemium, but also, what is true of many other of our fluid extracts, their frequent worthlessness as to medicinal action, when prepared by unscrupulous manufacturers.

Therapy.—Acting as it does on the great central nervous system, gelsemium must undoubtedly have a wide application therapeutically. In its native Southern region, it has for many years had an extensive reputation as a remedy of great value in the treatment of autumnal malarial fevers. While its efficacy in this direction may have been over-estimated, yet its beneficial effects in malarial fevers are such as to merit our careful consideration.

During several months' practice in the malarial regions of Missouri, I conducted a number of experiments to discover, if possible, the effects that gelsemium has upon malaria. After an observation of a number of years, during which time I have probably administered the remedy to many hundreds of cases, I have arrived at the following conclusions: First, gelsemium is not a direct antidote either chemically or physiologically to malaria; second, it does have a wonderful effect over the disease,

owing to the relaxing influence it brings to bear upon the system, thereby increasing excretion, and assisting to eliminate morbid matters.

Third, I regard it as the great adjuvant of the salts of cinchona. In this respect, in my estimation, it nowhere has its equal; and in this direction, so far as malaria is concerned, lies its chief merit. In looking over my notebook, I find record of a case which came under my observation in the year 1873, in the city of St. Louis, and which fully illustrates this action. S. C., age 45 years; occupation, sign-painter; bilious temperament; sallow complexion; melancholy expression of countenance; said he had been afflicted with ague at intervals of a few weeks for some three years; had taken medicine from many physicians; had tried to take the various salts of cinchona, but the smallest amount produced such terrible cerebral symptoms that he now declared positively he would rather suffer with the disease than undergo the terrible agony produced by the quinine. He called upon me for treatment, and after he had given me a history of his case, I attempted to explain to him that I could administer the quinine in such a way as to prevent the usual unpleasant effects; but it was of no avail, he refused treatment. In a few days he was seized with a terrible paroxysm, simulating the congestive form. He, however, came out of this safely, but was again in forty-eight hours prostrated with another attack. A messenger came hurriedly for me, saying that Mr. C. was dying. I found him partially unconscious, in a congestive chill. After three hours of hard work, with diligent use of stimulants, external heat, etc., I succeeded in arousing him, and reaction began. During the febrile stage, I gave freely the fluid extract of gelsemium till I had reduced the temperature to the normal standard, and produced symptoms denoting the full effects of the remedy. To accomplish this, I gave for the first six hours three drops every hour, and afterward continued two drops an hour for twelve hours longer. At the end of this time, the patient being thoroughly under my control, or rather under the control of the medicine, and willing to take anything rather than risk dying in the third paroxysm, I immediately began the administration of sulphate of quinine, and gave ten grains every two hours till I had given 120 grains. I

then ceased and awaited results. It is needless for me to say there was no return of the disease. The patient was pleased; he had tried for years to take quinine, but could not endure its action. In the present instance, not a symptom of tinnitus aurium was manifested, and no other unpleasant symptom was noticeable. This is only one of a number of cases which now occur to my mind, in which I have seen gelsemium used to prepare the system for the action of quinine, where previously it was known to have a deleterious effect. That gelsemium is at all curative of malarial diseases, in the sense that quinine is, I do not believe; and yet I have observed that many so-called chronic cases, where the liver, kidneys, and entire excretory apparatus was torpid, were benefited or cured by this remedy. Its action in this direction, as I have before stated, I attribute to its influence over excretion, thereby enabling nature to throw off the disease through the natural channels.

In *convulsive diseases*, particularly those where the spasm is dependent upon reflex irritation, I know of no remedy that so satisfactorily fulfils the indications. In my own practice the most favorable results have been obtained in this direction in the various diseases of childhood in which convulsions are manifested. Children, as we all know, from a sensitive condition of the spinal centers and increased reflex irritability, are more liable to convulsions than adults. To quiet this irritation, knowing the action of gelsemium on the motor centers, we would naturally select it as the remedy *par excellence*. Such it has always proved itself to be in my hands. I have a number of cases recorded on my notebook to illustrate this action, but to mention one will be sufficient. Willie S., aged 8 months, was fed by his nurse for supper, milk and mashed potatoes. He had often been given the same diet for supper without deleterious results. On this occasion, however, as was afterwards discovered, the potatoes were not sound, and contained numerous hard lumps, which, when swallowed, the stomach was unable to digest. Consequently the child was thrown into convulsions. In one hour after this meal, spasms made their appearance. I was sent for, but did not reach the patient till about three hours after the beginning of the attack. During this time, according to the statements of the attendants,

there had been twenty or more convulsions; this would be one in less than each ten minutes. As I entered the room the child was just relaxing from the last paroxysm. I immediately gave two drops of fluid extract, and in ten minutes two drops more. I then added ten drops of the fluid extract of gelsemium to four ounces of water, and ordered a teaspoonful of the mixture to be given every hour for twelve hours. No more convulsions appeared, and the next day the child was convalescent. Upon the whole, I think there is no remedy that has such a satisfactory effect on the nervous system of the child during the period of dentition, when the entire system is disturbed from irritation of the distal extremities of the fifth pair of nerves.

As a remedy for *meningeal inflammation*, both of the brain and spinal cord, I regard it as of great value. Some ten or twelve years ago, when cerebro-spinal meningitis prevailed more extensively over the country than at present, a number of cases came under my observation, all of which I treated with the remedy. I remember distinctly a case which serves to illustrate not only the efficacy of gelsemium in cerebro-spinal fever, but also the large amount of the remedy that may be borne when the nerve centers are irritated, or inflamed. I have no notes of this case, but write from memory. The patient was an intimate friend of mine, a medical student. When I was called to his bedside, the case had already progressed four days; his temperature was high; pulse rapid and small; tongue dry; mind wandering, and there was severe spinal tenderness. The slightest disturbance in the room, or jar of the bed, resulted in severe convulsions accompanied by opisthotonos. This occurred once or twice an hour. He had been given bromide of potassium to a large amount without apparent benefit. I immediately began the administration of gelsemium; and gave the fluid extract five drops an hour till I had given three doses, at which time another convulsion appeared. I then gave ten drops an hour; and in three hours there were slight symptoms of another convulsion. I then administered twelve drops an hour; and gradually increased to fifteen, before there was entire relaxation and disappearance of all convulsive action. This dose was maintained for several hours, and then, as toxic symptoms began to be manifested, the dose was diminished.

He was kept under the influence of small doses for a week or more, and finally recovered. He was living when I last heard from him about three years ago, and was practicing medicine somewhere in the State of Michigan.

Gelsemium has been reported as used successfully in a number of cases of tetanus, but my own experience with it in this disease has been such as convinced me that it is of but little, if any use, in the tetanic condition. It has no effect, in itself, over epilepsy; but when used with the bromides it apparently intensifies the action of the latter. This action I have verified a number of times in cases of epilepsy confined to children. After using the bromides for some time without much apparent benefit, the *gelsemium* was added, and the desired result was more immediate and permanent. A number of observers have spoken of the remedy as one of great value in *tic-douloureux*, neuralgia of the fifth pair of nerves. My own experience with it in this direction is not encouraging. I have used it in a very few cases with apparent success, but my failures have far outnumbered my successful cases. How it ever gained a reputation for this form of neuralgia, I am at a loss to understand. It is possible that the successful cases were not those of *tic-douloureux*, but of neuralgia from cold, or from some other excentric causes producing congestion, which we may readily understand would be more liable to be relieved by this remedy.

Gelsemium may be used successfully in many of the acute inflammatory diseases. By lowering the temperature, and lessening the pulse rate, its natural tendency would be to lessen or retard the inflammatory action. I have used it in many cases of pneumonia and pleurisy with beneficial results. By its action over the heart it lessens the liability to pulmonary congestion, has a soothing effect over the respiratory function, and lessens the cough, thus giving rest to the affected organ, conditions which can be readily seen to be essential to a rapid recovery.

Gelsemium has a marked effect over the mucous surfaces. This I have seen frequently demonstrated by using it in gastro-intestinal catarrh, dysentery, and inflammatory conditions of the urinary organs. I have used it successfully in many cases to allay vesical irritability. Dr. Edward Mayer—*Hints on Specific*

Medication—recommends it highly in irritation of the bladder and posterior portion of the urethra. Where there was a marked irritability in this region, I have used it to successfully check nocturnal emissions; and found it a valuable remedy in chordee. Dr. Mayer also mentions this fact, that cases of enuresis, both infantile and senile, have been cured by gelsemium when belladonna had entirely failed.

Another application of gelsemium to which I wish to invite attention, came under my notice some twelve years ago. I was in Eastern Kansas, and my attention was called to quite a number of rattle-snake bites. The prairie rattle-snakes were numerous, and people were frequently bitten, many of the cases occurring among small children. The symptoms were always violent, and occasionally a death followed. Noticing the high inflammatory condition and frequent convulsions that followed the bite, I reasoned that gelsemium might prove an efficient antidote. I immediately began its administration, and must confess that no other remedy in my hands has ever yielded such results. The local inflammation and pain rapidly subsides, and convulsions cease in a short time after the first few doses. I had an opportunity to notice the effect of gelsemium in a number of these cases, and have also had favorable reports from several physicians to whom I suggested this plan of treatment. I not only gave the medicine internally, but had it applied locally. In these cases I regard its action as entirely physiological, and not chemical. The use of gelsemium in rattle-snake bites was first suggested to me by my father, Dr. Geo. W. Davis, of Foster, Bates county, Missouri.

Diseases of Women.—Another application of this remedy, and one which may be considered equal to, if not greater in importance than, all others, is that which relates to the pelvic disorders of women and their attendant nervous disturbances. This declaration may apply with equal force to both the acute and chronic states. The relaxing effect which it possesses over the uterus and its appendages, is something remarkable. In the first stage of labor, when the pains are of that peculiar short, sharp, and irritating nature, which is so exhausting to the patient and wearying to the patience of the physician, a few drops of the

remedy will immediately change the features of the case, the pains assuming a more steady and expulsive nature. When, owing to a hard, rigid, and unyielding os, the labor is delayed from hour to hour, a similar administration will immediately produce relaxation, and permit the labor to proceed without interruption. In many forms of dysmenorrhœa its beneficial effects are equally noticeable, but to produce a more satisfactory result in these cases it should be administered for a month or two daily. By keeping the system thus for some time thoroughly under its influence, the pelvic circulation becomes more free, all congestive symptoms seem to disappear, the uterus and its appendages are relaxed, and, being freed from the tense and rigid condition which usually prevails in these conditions, menstruation becomes free and painless.

But I wish more especially to call attention to the action of gelsemium in those diseases of women which have assumed more or less of a chronic form, and in which, from a long continued condition of congestion, irritation, and perhaps inflammation of the pelvic viscera, the nerve centers have become so disturbed that the disease is finally classified under the head of the "neuroses." Possibly no class of patients suffer more from incorrect medication than these. Surely there is none concerning which there is so wide a diversity of opinion regarding the diagnosis of individual cases and the medication to be employed to remove the disease.

After we have read the various conflicting pages of authority on this subject till the mind is confused in the attempt to come to a correct understanding of the pathological conditions which distinguish the various phases of hyperæmia and anæmia of the spinal cord, or the same conditions confined to the anterior or posterior columns and the base of the brain, hysteria, spinal irritation, neurasthenia, and the various mental phenomena which approach the borders of insanity; after we have taken a survey of the entire armamentarium which the medical world has stored up for this purpose, including phosphorus, strychnine, iron, the bromides, electricity, and that much abused nineteenth century method, "local treatment," we are ready to close our eyes. We can easily imagine before us the helpless form of woman, piteously

and vainly extending her hands for help. Now, while I do not claim to have discovered a never failing remedy—a panacea—for all these conditions, yet I do hold that a large number of the diseases of females can be relieved, benefited, or cured by this remedy. I reason that in the most of them there is an inefficiency or unequal distribution of nerve force, and consequently an unequal distribution of blood supply. The nerve centers being stimulated to a correct performance of their functions, there follows an equal and normal supply of blood.

Gelsemium has an apparent two-fold action on the spinal cord. When given in minute quantities and long continued, it stimulates, gives tone and elaborates nerve force, while the opposite effect is produced if the dose is sufficiently increased. This apparently dual mode of action may be considered simply as different degrees of the same action, and not as an illustration of the homœopathic idea of infinitesimal action, or a verification of the theory of *similia similibus curantur*. No more rational explanation of this mode of action can be given than that explaining the way in which small doses of ipecac lessen the irritability of the gastric mucous membrane, and in this way check vomiting; or in which strychnia in small quantities is used to control some forms of convulsion. Prof. Ringer has satisfactorily demonstrated this primary stimulating action of the article by noting its effect in some of the lower animals on the third pair of nerves. By a series of carefully conducted experiments, he shows conclusively that whether given internally, or applied topically, contraction of the pupil invariably precedes dilatation, thereby proving that its first effect is that of stimulation. After having administered it for a number of years I am now prepared to positively assert that gelsemium is a stimulant, or perhaps I might say tonic, to the cerebro-spinal system when long continued in small quantities. It has yielded the best results in the nervous diseases of women, in connection with many disarrangements of the pelvic viscera. I am inclined to believe that more of these diseases located in the pelvic cavity are due directly to a depressed condition of nervous force, than is generally admitted by the profession to-day, and instead of the local trouble being the cause of the nervous disturbance, the reverse is true. It is this class

of cases in which I would most earnestly recommend the long continued use of gelsemium in minute doses. Perhaps a better illustration of this application of the remedy may be given by reciting the history of three cases :

CASE FIRST.—Mrs. I. S. came under my care five years ago ; age 35 years ; mother of four children, youngest fourteen years old. When I was called to her, she was confined to her bed, and had not taken a step without assistance for five weeks. She was weak, despondent, very nervous, and subject to severe neuralgic attacks in various parts of the body. Examination revealed a tense, swollen condition of the uterus and also much peri-uterine congestion and inflammation. In the region of the right ovary was a large swelling, which was easily recognizable through the walls of the abdomen, and which her medical attendant had designated as a tumor. Her history was the usual history of such cases. Two years before she had felt that her health was giving way. She was languid, tired in mind and body, and seeking counsel from her physician, was told she had ulceration of the womb and must have local treatment. She had it, changed physicians and had it again, and continued to have the same treatment from each physician to whom she applied, varied slightly according to his fancy, or as to whether his diagnosis was ulceration, endocervicitis, retroflexion, retroversion, ovaritis, or peri-uterine inflammation, spinal irritation, etc. Menstruation had for a number of months been growing less, till now, at each period it amounted to only a few drops, or did not appear at all. There were also slight rheumatic symptoms in various parts of the body. Here was a disturbed condition of the nervous system which I believed could be removed by the administration of gelsemium. I immediately began to give it, my prescription being :

R Ex. gelsemii Fl.....gtt.j

Aquæfl ʒii

Teaspoonful three times a day.

The dose was gradually increased till in a month she was taking one-fourth of a drop, and in two months one-half of a drop three times a day. The patient gained gradually in strength, all of the functions of the body being gradually restored, menstruation increased with each period, and at the end of the sixth

month was perfect ; and the enlargement in the region of the left ovary had entirely disappeared, as also had all symptoms of uterine congestion and inflammation. In eighteen months after the beginning of the treatment she gave birth to a perfectly healthy child. Since that time her health has been perfect.

CASE SECOND.—Mrs. L. S., aged 45, came under my professional care in 1878. She had been in bad health for ten years. She gave a decidedly neurotic history, several members of the family having had insane symptoms. She herself had frequent attacks of severe neuralgia. She was melancholy, dizzy, felt exhausted on the slightest exertion, and complained of a feeling of numbness over the left lateral half of the body, which was increased at the menstrual period. This condition of hemi-anæsthesia was undoubtedly hysterical, and not due to any cerebral lesion. Ovarian tenderness was more perceptible over the left ovary. The bowels were constipated; micturition was frequent. On walking there was much bearing down in the back and lower abdomen. Examination revealed ovarian tenderness; the uterus appeared enlarged and retroverted. Menstruation had been very irregular for several months, sometimes not appearing for two months. She suffered severely with dysmenorrhœa; had been married twenty years but had never been pregnant. She had received a great deal of local treatment, and worn a number of pessaries of different kinds. Her physician had attributed her entire trouble to ovarian and uterine disease. I began the administration of gelsemium in doses of one-sixteenth of a drop, and gradually increased to half a drop three times a day. Her improvement was gradual but continuous. In three months her strength had much increased. The hemi-anæsthesia had almost disappeared. She was much more cheerful in disposition. Menstruation had appeared regularly, and was entirely painless and much increased in quantity. In six months all symptoms of ovarian or uterine inflammation had entirely disappeared, and she appeared well, with the exception of not having yet arrived at her normal standard of strength. Much exertion produced unnatural fatigue. I advised a continuance of the remedy. About that time she changed her residence to Michigan. In about three months she came across the lake one stormy day, and

called on me at my office full of anxiety and fear at what she termed her "strange feelings." Menstruation had not appeared for two months, she was nauseated, vomited frequently, and felt, as she expressed it, "so very strangely," such feelings she had never had before. She was fearful of an attack of paralysis. I made an examination, and found her pregnant. At this her alarm was greatly increased, and she pleaded piteously that I would again establish menstruation, declaring that as she had never been pregnant, and was now 45 years old, it would be certain death for her to attempt to bring a child into the world. I quieted her fears, gave small doses of oxalate of cerium and subnitrate of bismuth, and had her return home and write me every few days her condition. She continued to do well during the entire period of utero-gestation, and on the day of the birth I received a telegram, "wife and son doing well." A few months ago she called on me, and was leading a beautiful five-year-old boy by the hand. This was a remarkable case, not only for the removal of the pathological condition, but that menstruation should return and pregnancy occur at the age of forty-five years.

CASE THIRD.—Mrs. G. B., aged 46, consulted me June 18, 1880. Her case presented a number of interesting features, and was remarkable for the extremely low state to which the general system had been reduced, and the variety of diagnoses which had been given by medical gentlemen. For eight years there had been an apparent decline of health, and at the same time a perceptible loss of flesh, till at the time of her consulting me the weight was reduced to seventy-five and one-half pounds.

Five years previously she had suffered from an attack of typhoid fever of five weeks' duration, and since that time had been treated for sciatica, bronchitis, ulceration of the intestinal canal, disease of the pyloric orifice of stomach, cirrhosis of the liver, diseased kidneys, hyperæmia of the brain, and last but not least, the various flexions, versions, and inflammations of the uterus. She was a lady of unusual intelligence, and beyond the mere desire to recover, manifested a scientific interest in her own case, and had kept a careful record of opinions which had been given her by medical men concerning her condition. This recording of medical opinions seemed to have grown almost to a monomania

with her, and no sooner had I finished my examination than she took out pencil and paper, and enquired, "and now, doctor, what is your diagnosis?" I facetiously replied that as there was no room to make a new diagnosis, I would simply say that she was ill. Her case presented symptoms which indicated a general failure of nutrition. As before stated, at the time of beginning treatment she only weighed seventy-five and one-half pounds. Her symptoms were restlessness, inability to sit still, easily worried, frequent attacks of neuralgia, sleeplessness, depression of spirits, pressure on the top of the head, spinal tenderness, more marked over spinal processes of the third and fourth dorsal vertebrae, constipation, and a very feeble condition of digestion, with frequent acid eructations. She complained much of back-ache, and heavy dragging sensation around the loins, but examination revealed but slight engorgement of the uterus and ovaries. Menstruation had been very scant, and irregular for two or three years, and had not appeared since November preceding, seven months before. I immediately recognized in this case a condition of deficient and irregular supply of nerve force, and prescribed:

R Ex. gelsem. Fl.....gtt.j
 Aquæ..... ʒii
 M. Teaspoonful three (3) times a day.

She began to improve almost immediately. I increased the dose in one month to double the amount. The digestive organs resumed their natural function, the nervous system became quieted, sleep was more prolonged and natural, and at the third month menstruation reappeared, much to her surprise, and somewhat to my own, as she appeared to have approached the menopause. In October, four months from the beginning of the treatment, she weighed ninety-five and one-half pounds, indicating a gain of just twenty pounds. I gradually increased the dose of medicine till I had reached one-fourth of a drop, when the patient declared she felt the effects of each dose in the eyes half an hour after taking, when I reduced the quantity to one-eighth, at which I continued for about four months longer, when her health seemed to be perfect. She removed to the city of Philadelphia, and I did not see her for a year, at which time she

called and appeared in excellent condition of mind and body. About four months ago, when passing through the city, she called at my office, and still reported good health. She has had altogether a gain of thirty-five pounds since the beginning of the treatment, and menstruation still continues at the age of almost fifty years.

These cases are illustrative of a large number in which I have used *gelsemium* in small doses, with equally beneficial results. Whether the influence this remedy has over the pelvic viscera is due directly to an impression on the spinal cord, or upon the sympathetic ganglia, is a matter of some question; but it is highly probable that it has a tonic effect on the sympathetic ganglia as well as the cerebro-spinal centers. The action of *gelsemium* over the disorders peculiar to woman, I regard as a subject of great importance, and well worthy the attention of the profession. On no subject of diseases is there so great a diversity of opinion as here, and in no branch of medicine is there so great a demand for improvement in therapeutics. We bow with respect in the presence of those who in past years have formulated theories in regard to these diseases. Each age can read only by the light admitted to the altitude at which it stands. Looking back over the history of gynæcology with all the light of to-day and yesterday thrown upon it, can we refuse to acknowledge that a large number—a very large number—of the diseases in its field arise from a disturbed or depressed condition of the nervous system? We are living in a nervous age, and our spurious civilization rests heavily upon us. Dr. T. Gaillard Thomas, in speaking of woman and her diseases says, "The customs of civilized life have depreciated her powers of endurance and capacity for resisting disease." In the year 1850, Dr. Tilt, of London, affirmed that "as a rule, pelvic diseases of women radiate from morbid ovulation." Can it be wondered at, when the nervous system, the seat of nearly all the vital forces, is shattered, that nature should make an attempt to cut off the supply of sickly offspring by disturbing ovulation? This position of Dr. Tilt has been denied by many, but undoubtedly it contains the germs of truth. To-day I would go beyond this, and say that a large number—a very large number—of the pelvic disorders of women

arise from a disturbed condition of the nervous system, which in turn produces morbid ovulation. It is in this way that I account for the action of gelsemium over these disorders. Its action is directly on the nerve centers—spinal and sympathetic, equalizing the circulation, giving tone to cell-power, by these means permitting free ovulation, and so relieving the congested and inflamed condition of the other pelvic viscera. If this be true, if it does have the action illustrated by the cases I have cited, I propound the question, may it not also be considered a remedy for sterility?

A NEW METHOD IN ADHERENT PLACENTA.

The New York *Medical Record*, May 17, 1884, alludes to a report in the *Clinique*, by Dr. J. Feld, of Kansas City, on "A New Method in Adherent Placenta." In six cases of adherent placenta, the life of the woman was saved by pumping cold water through the umbilical cord.

Although the *Record* is profoundly in error, in its denomination of the method as a new one, it deserves credit for calling attention to a very old and very excellent procedure. The injection of cold water into the umbilical vein, in *post-partum* hæmorrhage and adherent placenta, was ably advocated and extensively practiced by Mojon (1826), Kilian, and others.

The umbilical vein is divided transversely, a tube or quill fastened securely in the proximal extremity, and cold water injected, slowly and carefully, into the placenta, by means of an ordinary syringe. The cold water, forcing its way into the placenta, distends that organ to twice its original volume, escaping through the lacerated utero-placental vessels, bathes the endometrium, and stimulates the uterus to powerful contractions, usually resulting in the total separation and spontaneous expulsion of the after-birth. Stoltz and Rombach (1855) have extolled most highly this measure, while Linéard (1875) claimed that the injection of 150 grammes of pure cold water into the umbilical vein was "the best, most reliable, and least dangerous expedient in all cases of *post-partum* hæmorrhage, or adherent placenta."

At present this method is extensively practiced in Germany, more particularly in Bavaria. Scanzoni, in Würzburg, practices this method exclusively.

W. W. JAGGARD, M. D.

May 26, 1884.

Society Reports.

AT THE CHICAGO MEDICAL SOCIETY.

Regular meeting of March 17, 1884.

The following important topics were discussed, regarding operative surgery pertaining to the nervous system, namely :

I.—Suture of Nerves. II.—Elongation of Nerves. III.—Exploration of the Brain by the Hollow Needle. The above selections appeared in a paper, prepared by Dr. Roswell Park, of Buffalo, N.Y., wherein he has deduced a number of interesting conclusions, a synopsis of which is hereby appended, furnished by the Secretary, who read the paper for the author (unavoidably absent).

We read* that Gillaume de Salicet, Lisfranc, Guy de Chauliac, and others, recommended the suture of divided nerves. But when we remember that nerves and tendons were often confounded in those days, this interesting item loses part of its importance. In 1776, Cruikshank demonstrated the possibility of cicatrization of nerves; after him Fontana proved this cicatricial substance to consist more or less of true nerve tissue, and recommended its union by suture, when divided, a procedure further advised by Dupuytren.

But the first to actually practice it as a physiological experiment on human patients were Baudens, Laugier, and Nelaton; the two latter having each within a single week, in 1864, a case which each for his own part reported.† It happened very curiously that in each of these cases it was claimed that sensibility and motility had returned within 24 hours after operation. This

* International Encyclopedia of Surgery, III, 621.

† Comptes rendus, 1864. No. 25.

seemed incredible, and Richet* cleared up the matter by reporting a case. This author claimed, and properly, that a similar state of affairs had obtained in those cases in which Laugier and Nelaton had claimed such surprising results, and that they had not accurately studied their cases before operating. Since that time the subject has been studied experimentally and clinically, until now the indications to the surgeon are perfectly clear. In the literature on this subject may be found among others the views of Arloing and Tripier, Langerfeldt, Lemke, Kraussold, Page, Brown-Sequard, Tillmanns, Nicaise, and Holmes. The exact number of all cases recorded to date, as nearly as the writer can estimate, is thirty, nearly all of which have been successful. To these, he would add two more never yet reported, some features of the operation.

CASE I.—*Rupture of the Sciatic Nerve—Immediate Union—Restoration of Function.* H. H., æt. 13. In 1881 the surgeon excised the hip joint of this patient (who was then 11 years of age), for long-standing and extensive disease. He made a good recovery from a severe operation. In time sinuses burrowed in the region of the buttocks, along with other evidence of new and extensive disease, and Feb. 9, 1883, radical operative measures to remove the disease were again undertaken, the patient being admitted to the Michael Reese Hospital, Chicago. He was assisted by Drs. Lackner, Tracy, and McAuliffe, and proceeded first to explore the parts. He found caries of the tuberosity and other parts of the ischium, sinuses leading inside the pelvic cavity and around the rectum. In brief, aggravated tuberculous disease of the bony pelvis and contents was present. In order to secure access to the parts, and to permit the necessary freedom of manipulation, a flap composed of the buttocks had to be laid up on that side, owing to the cicatrization following the previous operation and the present local disease and induration. The sheath of the sciatic nerve had contracted firm adhesions to the overlying parts. The nerve was unmistakable, but the tissue was in the way. So one of the gentlemen present undertook to hold up the flap with a powerful retractor, while the operator dissected the tissues from the nerve. Being short of sufficient assistance,

**Union Méd.*, 1867, p. 444; *Gaz. des Hôpitaux* 1867, p. 519 *et seq.*

the patient inadvertently was permitted to so far recover from his chloroform that he gave a violent wrench and turned partially around, when it was discovered that the nerve had been torn completely through; the ends, while not exactly ragged, being anything but smooth. The ends were dissected free, and the operation proceeded with as had been originally contemplated, *i.e.*, by resection of a good portion of the ischium, scraping out of the sinuses leading into the pelvis, inserting drainage tubes, etc., after which the nerve-ends were united, first snipping them off evenly with scissors, and then sutured as accurately as possible by two catgut threads passed entirely through the nerve-trunk and about a quarter of an inch from the line of section. After this the soft parts were closed as usual. Proper provision was made for drainage, and a Lister dressing applied, the whole having been done under the carbolic spray.

For about a week there was absolute paralysis of sensation and motion throughout the region supplied by the great sciatic. Thirteen days after operating there was but a small area of integument near the external malleolus which was not sensitive as usual, while he could move his leg as well as before the operation, and judging by his progress, regeneration was practically complete in a day or two more.

CASE II. *Division of Radial Nerve and Certain Tendons; Suture of Same after Two Weeks—Restoration of Function.* C. D. G., aged 16. April 1, 1883, patient cut his right wrist with a cheese knife in a way that severed the radial nerve and artery, and the extensor ossis metacarpi pollicis and extensor primi internodii pollicis. The physician who saw him at the time of the accident contented himself with checking the hæmorrhage. At the Reese Hospital, Chicago, on the 16th, the following condition was noted: Hand dropped to the ulnar side, with sensibility of those parts supplied by the radial nerve, extremely impaired, and, indeed, in the central portion of that area practically lost.

After anæsthetizing him and dissecting down upon the parts, found the tendon ends retracted within their sheaths, so as to be an inch apart; opened the sheaths and carefully united the ten-

dons by catgut suture, and their sheaths over them by interrupted sutures of the same material. Then the ends of the radial nerve were found, and freshened and brought together by a single catgut thread. Over all, iodoform dressings. By May 5, sensation was restored to the areas supplied by the radial nerve; by the 25th, it was evident that the tendons had firmly re-united, and, except as limited by partial adhesions in their sheaths, were capable of re-assuming their functions. In course of time these adhesions became stretched, and the hand became very nearly as useful as before.

Commentary. Suture of nerves is known as *direct* when the suture material is passed directly through the nerve trunk, and as *indirect* when only the nerve sheath is included; the former is usually preferable. There is fair prospect of success, even months after the original injury, as witness the case in which Wheelhouse* united the sciatic fully nine months after the accident which severed it, the patient in four months more being able to do all manner of hard work; while Jessop, according to Tillmanus,† has recently operated *nine years* after the injury and with fair success. Nevertheless, the sooner it is done, the better, and the quicker will be the result.

If on dissection the nerve ends prove to be clean cut (in recent cases) they need no further attention before uniting them, and the ordinary full curved surgical needle will suffice for the operation, taking care to insert and pass it flat-wise between the bundle of nerve fibers until the broader cutting part is through, and then to turn the needle half round and let the carbolized cat-gut slip through the little slit. It may be necessary to introduce two or three sutures, especially in the larger trunks. Avoid tension of the limb. The part must be dressed accordingly, and immobilized. Observe full antiseptic measures. Evidently primary union is only such in appearance. It is cicatricial, not physiological. *Immediate suture does not prevent degeneration, but simply permits regeneration to take place much more rapidly than it otherwise would. But immediate union of divided nerve tissue does not occur.* Letiévant has suggested autoplatic operations

* Brit. Med. Jour., Aug. 5, 1876.

† Loc. cit., Case II.

on nerves, and Gluck, in 1882, at the Congress of German Surgeons, reported some astonishing successes in neuroplasty by transplantation. While the writer has not as yet performed this operation, he would not hesitate to make the experiment of transplanting nerve from some animal into a patient, did a suitable case present.

It may be well to add, no case yet known has had neuritis or tetanus, or have any untoward consequences resulted from this sort of surgery of the nerves. The operation deserves much more cordial recognition and acceptance than it has as yet received.

II. *Elongation of Nerves.*

Upon this portion of the paper, the writer dwelt considerably upon the literature, and many were the authorities quoted. Its application has apparently, therefore, not been restricted to neuralgia and contractures, but has been extended to anæsthesia and paralysis, great atrophy, convulsive affections, to tetanus, locomotor ataxia, and even to anæsthetic leprosy, etc.

To Nussbaum (says the writer) we owe a debt of gratitude for making the way clear and first putting "nerve-stretching" into practice. While resecting an elbow in 1860, his assistant accidentally but forcibly stretched the ulnar nerve, and it was noticed the tetanic cramp, with which the arm was previously affected, totally disappeared, which made a strong impression on his mind. In 1869, it happened that Billoth had a patient who had received a violent contusion of the buttock, and subsequently developed epileptiform paroxysms. Under the impression that there was nerve irritation from some bone splinter, he denuded the nerve without finding anything wrong, but the nerve had been disturbed and more or less stretched, and recovery followed. Acting on these hints, Nussbaum for the first time practiced intentional elongation in 1872, the case being one of contracture of the upper extremity, consecutive to contusion. Recovery followed the operation. Without discussing the general merits of the operation, or the statistics, or extent of stretching that nerves will bear, nor yet the changes resulting therefrom other than clinical results obtained, we will be content in making synopsis of the five cases reported by the writer, that have not heretofore been placed on

record, in three of which elongation was made on purely empirical grounds, and merely as physiological experiments.

CASE I. *Chronic Sciatica—Elongation—Recovery.*—W. L., aged 25, has suffered severely from sciatica for some five months; has lost considerable flesh; has been all this time under medical care, and for the last six weeks in the County Hospital, Chicago. A most varied internal treatment has been resorted to, as well as the use of electricity, part of the time intelligently applied. Patient was admitted into the Michael Reese Hospital, Chicago, and on June 15, 1883, he was anæsthetized, and the sciatic nerve of the affected side was stretched. The operation was made under the spray. By the 20th, when the dressings were changed, the wound was found to have healed per primam; pain was relieved at once, and at this date sensation and motion were found to be nearly normal. There was now and then a twinge during the next month.

July 20, when he was discharged, he simply noticed an occasional pain in one small spot in the calf of the leg.

September 1, he called to say he was perfectly well.

CASE II. *Toy Pistol Tetanus—Elongation of Brachial Plexus—Amelioration of Symptoms.*—A. G., aged 10. On the 4th of July, 1883, patient injured his left hand with a toy-pistol. On the 11th, at 4 A. M., he developed the first symptoms of tetanus. He was at once brought to the Michael Reese Hospital. Saw him at 11:30 A. M.; at that time there was moderate clonic spasm of the muscles of back of neck, with tonic exacerbations; found a suppurating wound in palm of left hand. The patient was anæsthetized; operated under the spray. The palmar wound opened, I found it foul and containing a piece of wadding, which was removed, and the cavity scraped. An incision along the inner border of the biceps brachii was made, the nerves isolated and stretched in each direction, including the median, ulnar, and internal cutaneous nerves, and that of Wrisberg. Wound was closed over a small drainage tube, and iodoform dressings applied. The patient improved decidedly after this procedure. Squibbs' ext. physostig. gr. 1-15 hypodermically every two hours; also sodii bromid. gr. x. every two hours, and chloroform inhalations.

during any tetanic seizures. Evening condition very satisfactory. Next morning about 7 o'clock he complained of pain about the heart, and died within an hour, apparently from spasm of the diaphragm. Autopsy not allowed.

CASE III. *Motor Paralysis of Right Leg, following Spinal Meningitis—Elongation of Sciatic Nerve—Negative Result.* A. K., aged 40, in July, 1881, was seriously ill, probably a spinal meningitis. At present he suffers from mono-plegia, the right lower extremity being the part involved. Has been under the care of several physicians, and recently a patient in the medical department of the Michael Reese Hospital, where, along with electricity, various other remedies were tried. Elongation of the sciatic as an experiment was proposed; patient accepted it *as such*. September 15, 1882, operation under the spray. The limb was suspended by the nerve, and stretched from above downward, and *vice versa*. Heart's action momentarily disturbed. Union *per primam*.

October 17, patient acknowledged perceptible improvement. Very little further improvement was made in several weeks longer that he remained in the hospital.

CASES IV. AND V. *Paræsthesia and Dysæsthesia of Unknown Origin—Elongation of Sciatic, and Later of Crural Nerves—No Result.* H. K., aged 32, has suffered fourteen years from perverted sensations, causalgia, etc., referred to integument of lower extremities, especially the right one. Of late complains of a feeling of intense cold, referred particularly to the area of distribution of the right sciatic and peroneal nerves. His intelligence is not of high order. Patient has been under the observation of Dr. Ernst Schmidt for years, who finally suggested *elongation* as a pure experiment, and admitted him to the Michael Reese Hospital, June 22, 1883. Sciatic and peroneal nerves were stretched, with the usual precautions. July 1, no improvement, and at patient's urgent request the anterior crural was stretched, and yet no benefit seemed to accrue. Each time the nerve was stretched downward in this case, and also an irregularity of the heart's action occurred for a few seconds.

Commentary. Case I exhibits the happy effects to be obtained in obstinate cases of sciatica resisting medication. The operation has a wide sphere of usefulness in this form of complaint, of which not a few cases are already on record.

Case II exhibits at least the temporary relief to be obtained by this measure in cases of tetanus. That we cannot afford to reject this method of treatment, for amelioration of symptoms is better than no impression at all, although in this case an error may have been committed in omitting also to stretch the musculo-spiral nerve; possibly too much sedative treatment was given the patient, and not sufficient stimulating nourishment; a not infrequent mistake.

Cases III, IV, and V were undertaken, as already remarked, on *purely experimental grounds*, and the patients accepted it as such; they further go to prove that we usually learn more by our failures than from our successes.

III—*Exploration of the Brain by the Hollow Needle.*

There is no *special literature* on this subject. To illustrate the case with which it may be done, and its harmlessness, the author cited the following cases:

Case I—Gunshot Wound of Brain—Trephining—Repeated Exploration for Pus—Extrusion of Fragment of Bone—Recovery. J. L., age 20, on the afternoon of July 4, 1883, received a bullet-wound of the left parietal eminence; brought to the Michael Reese Hospital. The house-surgeon abstained from exploring the wound, but clipped the hair short and made antiseptic occlusion with iodoform cotton, also applied ice-bags. At evening there was complete right hemiplegia; pulse 90; pupils normal; patient conscious and rational; continued the ice-cap and gave directions to use catheter.

Next morning learned of patient having two convulsions during the night; he also lost consciousness; pupils normal, and respiration natural.

Exploration under the spray revealed a comminuted gunshot fracture; trephined; removed several small fragments, some of which were partially imbedded in the brain; removed also a

piece of the small pistol bullet. Compression was then made and dressings of naphthaline gauze applied. For several days patient's condition was satisfactory, except that the hemiplegia persisted.

July 13—Answered questions rationally.

July 18—There was free discharge of pus.

July 20—Symptoms of cerebral irritation; fear of abscess forming; dressings removed; introduced a well-cleansed needle of a hypodermic syringe through the cicatricial tissue, explored in different directions by its full length, never completely withdrawing the needle point. No pus, and but a few drops of blood entered the barrel of the syringe. No anæsthetic was given, nor pain complained of; no unpleasant effect of any kind followed.

July 23—Has some control of right leg, but the arm was in a contracted condition.

July 26—Patient very fretful and irritable; discovered a hard substance under the integument; upon cutting down (without an anæsthetic), removed a piece of bone of the size of a silver half dime, and the full thickness of the skull. To be certain that no abscess was forming, exploration was again made with the hypodermic needle as before, and again with negative results.

July 28—Patient discharged, wearing a lead plate to repress a tendency to hernia cerebri.

August 3—Patient steadily improving and regaining the use of his arm.

Case II—Suspected Abscess of the Brain—Exploration. This case presents a humorous side. H. H., age 38; admitted to the Buffalo General Hospital during the first week in January of the present year. No accurate history elicited; patient had facial paralysis of right side of the face; gave a very indefinite history of suppurative trouble of right middle ear dating back for years. Had also further paretic symptoms in the limbs; inco-ordination of ordinary movements; incontinence of urine and feces; pupils unequal, but sensitive to light; pulse and temperature normal. He gave no history of convulsive seizures of any kind; syphilis denied.

January 7—Was summoned to a consultation concerning the

case; others present, Drs. Wyckoff, Rochester and Gay. For several hours patient had been comatose, pulse had been as low as 48, and his general appearance was as of one suffering from compression of the brain. Bearing in mind the trouble in his middle ear, and the other part of the history of the case, an abscess of the right side of the brain, or a collection of pus in that neighborhood was suspected, and exploration was resorted to over the mastoid region, first trephining high enough to escape the lateral sinus. The longest needle of a hypodermic was then used, passing it inward, upward, downward, backward and forward, getting thereby only a few drops of blood. Wound was irrigated with sublimate solution, closed over a drainage tube, and a naphthaline dressing applied; spray not used; very little ether required. The succeeding day, January 8, patient perfectly conscious. In short, this had been an epileptic seizure.

January 16—Wound perfectly healed over where the button of bone had been removed, and his general condition was improved.

February 5—Patient went home perceptibly better than when he entered.

Evidently here was an error in diagnosis, but an excusable one, as the man had not been in the hospital long enough to make a diagnosis possible, and where no history was obtainable, especially regarding his previous seizures. It is, moreover, obvious that the epilepsy in his case is secondary to some serious organic change, and a case of this kind, with its *post-mortem* revelations, was still fresh in the surgeon's mind, which possibly also influenced him unduly to operate. In spite of error, however, the patient was benefited rather than injured by the operation. Exploration of the brain, at least of its upper and enveloping portions by the hollow needle, is harmless, and it should find a recognized place both in our surgical practice and in our textbooks.

The paper evoked considerable discussion, as may be seen from the following remarks:

In discussion, Dr. J. G. Kiernan said Johnson (a Norwegian physician) had experimented on suture of nerves in fowls, and reported that to do so by the direct method, it required 45 days

before the animal regained the normal function of the affected part, and 60 days when it was performed by the indirect method.

Regarding the second part of the paper—nerve-stretching—there is not much benefit to be derived from the operation, except in cases of neuralgia. The operation is not unattended with danger. During 1882, of 25 cases of locomotor ataxy reported where nerve-stretching was performed, five cases died from the operation. The same year, Graeme Hammond reported a case where the operation aggravated the disease. In a case of multiple cerebral sclerosis in which he was personally cognizant of the facts in the case, he reported the following result: The patient (a man) having previously been treated for a long time, visited an Eastern city and returned markedly improved. Upon inquiry, I was told by him that the posterior cord of the brachial plexus had been stretched. I examined the surface over the region of the clavicle, and at once saw that only the integument had been cut through. Now, here is a case of *imaginary improvement*, and the man really believes himself improved because, as he supposed and believed, the *real* operation had been done to relieve him. Regarding the case of tetanus reported in the paper, he did not think nerve-stretching was warranted after the source of irritation had been removed, the wound cleansed and dressed antiseptically, and the patient treated with physostigma. Regarding exploration of the brain, the speaker thought it an unjustifiable procedure, unless based on symptoms localizing the lesion in some portion of the brain.

Dr. J. J. M. Angear arose and debated the subject quite extensively. Regarding the vicarious action of nerves that the author alludes to, and their anastomoses, he did not fully understand. For it is a fundamental principle that nerves are continuous, and thought these words should not apply here, as we do to the circulatory system. Regarding the cases of suture of nerves of long standing the author speaks about, the speaker said, when a nerve is severed and does not at once heal, that nerve, or portion of it passes into fatty degeneration, and it is then no longer a nerve, and we might as well talk of restoring arteries after ligating them as of restoring nerve function after this manner.

To illustrate—We may have a painful stump after an amputa-

tion, and why? Because the ends of nerves supplying the parts have not passed through this degenerative process, but instead, little fibrous cords, or bulbs, or a tumor has formed, and oftentimes may require to be removed to relieve the increased sensibility. We do not have that immediate physiological action from suturing nerves—it takes weeks or many months before physiological action is established. With reference to elongation of nerves, great damage may be done in this procedure when this operation is performed. A surgeon (he doubts) never looks into the details or minutiae, to see further about the nerve to be stretched, what is wrong, but proceeds to the stretching of it, and I very much doubt if peaceful, harmonious nerve action follows this operation, or at least in but one or two exceptions.

Exploration of the Brain.—This we cannot endorse as a society. If we operate on the cerebrum of a patient, fatal harm may result. I cannot see how it is the “harmless operation” the surgeon states it to be, and I think death more often occurs than beneficial results follow such procedures. Certainly there is great danger in probing the human brain, for a minute clot may form from a little hæmorrhage that may ensue.

Dr. G. C. Paoli: Let us admit, for the sake of argument, that suture of nerves and nerve-stretching will relieve suffering humanity. But no statistics that he knows of are yet published as to the percentage of successes. He does not doubt but that in a very few cases nerve-stretching may prove beneficial. We often admire the boldness of a surgeon, but what a surgeon does to-day he would, years ago, have been branded for as committing murder. Some of our colleagues who are old in the practice of their profession are, for like reasons perhaps, called “old fogies” because we do not go ahead and cut, but nature heals our cases and before long it may be that the operation of nerve-stretching will be performed in acute neuralgia, as it is now done to relieve the chronic forms of it. The operation for sciatica has been in vogue during the past ten or fifteen years, and does not always afford permanent relief.

Dr. D. A. K. Steele thought the discussion thus far had been quite severe in criticising the paper, and he thought immediate nerve suture to be justifiable; it should be done often where

only the integument is sutured. Nerve stretching, he thought, is useless in tetanus and locomotor ataxy, whereas in obstinate sciatica it cures, and is a justifiable operation. The last portion of the paper on "Exploration of the Brain," is as yet certainly a mooted question. It seems to me that it can not be done without a blood clot forming or wounding a blood vessel, or that paralysis may ensue; if such is the case, then it is not a justifiable operation. Some portions of the paper merit much praise, and as such I have been much interested.

Dr. R. Tilley thought the surgeon was not justified in doing more at the first consultation in the case of the toy-pistol tetanus cited in the paper, than the removal of the piece of wadding and the mere cleansing the wound and dressing it properly and using antiseptic measures, etc. Regarding suture of nerves and union of nerve tissues, experiments have been tried where crossing the nerves has been done by crossing the distal end over the central portion (X thus), and then it took from two to ten weeks before they became adherent and function restored; complete paralysis has occasionally resulted from the procedure.

A motion that the society do now adjourn prevailed.

L. H. M.

CHICAGO MEDICAL SOCIETY.

The annual business meeting of this society was held on the evening of April 7, 1884, with the President, Dr. D. W. Graham, in the chair. Eighty-five members were present.

The annual reports of the Secretary, Treasurer, Committee on Library, and Auditing Committee, were read, received, accepted, and placed on file. Appended are the reports of each, in synopsis, after which election of officers for the ensuing year was held.

SECRETARY'S ANNUAL REPORT FOR THE CURRENT YEAR ENDING
APRIL 7, 1884.

Mr. President, and Members of the Society:—

While there may be nothing novel in my submitting to you a

résumé of that which goes to make up a report of the proceedings and business transacted in this society for the current year of 1883, it will, we trust, prove most gratifying and favorable to the members to be presented herewith a report which closes more than thirty years of our existence as an organization. During the year there has, probably, been a greater amount of more earnest work done than has ever before been performed by us. The duties of each one of you, it is presumed, have, to a certain degree and extent, been correspondingly increased. And I take great pleasure, therefore, this evening, in being able to make the very flattering statements about to follow, statements that in their simplicity may commend themselves to you; that the field gone over by us represents an advance that never before have we attained, so far as the knowledge of the present incumbent extends. This report will also contain a few figures for comparison regarding the business transacted in the society for the years 1882 and 1881, respectively.

During the year we have held 19 regular meetings and 1 special meeting.

Thirty-eight scientific essays and papers, written by 30 members, and a number of reports of cases, in writing, have been presented, with a larger number of pathological specimens than during any former year for a very long time, besides several instruments of cure and mechanical appliances that have been exhibited.

Five hundred and four members and 134 visitors have attended 20 of the meetings, being in all 630 physicians and students, compared to 450 members and 120 visiting physicians, or 570 persons in attendance during 1882, and 304 members and 99 visitors, or 403 persons, in 1881.

The largest number in attendance at any of the meetings was about 100. The smallest number that attended any of the meetings is only 12. The average number of members in attendance at each meeting is $24\frac{14}{20}$ of guests $6\frac{14}{20}$; or a total of $31\frac{8}{20}$, compared to 30, the average number that attended the society the year previous, and 24, the average attendance during 1881.

Thirty-five new members have been received into active membership. (This number does not include the accessions, 8, this

evening.) Compared to 34, the number admitted in 1882, and 18 elected to membership during 1882, or 87, the entire number received in the society during the three years of the present incumbent.

The membership list one year ago consisted of 210 members, and 181 constituted the number at the close of the year 1881. An increase of 35 during the year would make the total membership 245. Of this number, one has passed to the silent land, one resigned, and one left the city. This number of 3 deducted will leave a correct and accurate list of 242 members constituting this society. There are others who have removed from the city that wish to retain their membership, so that out of our total membership some 6 or 8 are non-resident members, of which a word upon this part of the report will be added later.

No less than 235 postal card announcements have been issued for each meeting, or a total number during the year of not less than 4,700. Regarding the time required to superscribe this number at the rate, computed approximately, of 40 postal cards an hour, it would take nearly 120 hours time to do this, which, at the rate of 10 hours a day, would be equivalent to 12 good days work for this single item alone to have been performed. Besides this, about 160-5 pages of records have been transcribed in this book, and a large number of communications answered. Your Secretary has also recently revised the membership list with the address of each member, and transferred the same, along with copying the Constitution and By-Laws, in the new book of records, which is the largest and finest we have ever had, and which I now show you.

The pages of records may, for sake of illustration, be compared to 86 and 61 pages, respectively, that were recorded during the two years previous. Perhaps no part of the records will find more ready appreciation than the faithful *verbatim* reports of the discussions. I say faithful, as implying as near as possible, that of a retentive memory, in addition to the comprehensive notes that were taken at the time of debate, and as discussion is clearly an important feature of our sessions, where they have appeared in print, an endeavor has been made to give to the profession everywhere most clearly the individuality of the mem-

bers and the views of those who participated, without partiality being shown to anyone.

The list of papers includes a varied assortment of topics, the best that has ever been written by the members and presented here. In many of the papers there was so much value that they have been sought by other associations and re-read as well as being quoted, in every instance in abstract form or in their entirety, in several medical journals. And we trust the high standard in this respect will be maintained. The subjoined list of papers, including the author and date of reading, constitute this part of the year's summary.

- (1) Prevention of Contagious Diseases and our Hospital Accommodations for Children. Dr. Frank E. Waxham, April 2, 1883.
- (2) Treatment of Empyema. A paper prepared by Dr. E. F. Ingals, and read by Dr. W. L. Dorland, April 16, 1883.
- (3) A Running Commentary on the Relation of Micro-Organisms to Disease, with an exhibition of 30 micro-photographs. Dr. W. T. Belfield, April 16, 1883.
- (4) Exhibition of Dr. Wm. P. Verity's improved derrick and suspension apparatus for the application of plaster casts. Dr. Frank S. Johnson, May 7, 1883.
- (5) Observations on the Published Proceedings of the Meeting of the Illinois State Board of Health, held at Chicago April 12-14, 1883. Dr. Ephraim Ingals, May 7, 1883.
- (6) A Report on Recent Research in Operative Surgery. Dr. John E. Owens, May 21, 1883.
- (7) "Stammering" is the subject of an amusing and instructive paper read by Dr. Alonzo Bryan, June 4, 1883.
- (8) Exhibition of Bacteria under the Microscope, Removed from a Decayed Tooth. Dr. Robert Tilley, June 4, 1883.
- (9) A paper on Obstetrics, including a report of a Trio of Triplets. Dr. Henry Ogden, June 18, 1883.
- (10) How Doctors and Medical Societies should be Made More Efficient. Dr. Simon Strausser, July 2, 1883.
- (11) Mechanical Equivalent to Animal Heat. Dr. H. D. Valin, July 16, 1883.
- (12) Report of a Case of Bilateral and Forward Dislocation of

the Fourth Cervical Vertebrae (wherein the patient recovered). Dr. W. L. Axford, July 16, 1883.

(13) A Written Report of a Case of Acute Hepatic Abscess, with Autopsy. Dr. C. T. Fenn, July 16, 1883.

(14) The special meeting, September 26, 1883, at which Sir Wm. MacCormac addressed the society on several topics pertaining to the major operations in surgery, will again be alluded to in another part of this report.

(15) History of Insanity in Chicago, from an Analysis of 3,000 Cases. Dr. S. V. Clevenger, October 15, 1883.

(16) Report of Three Cases of Insanity from Quinine. Dr. J. G. Kiernan, October 15, 1883.

(17) The Effects of "Manganese" in Amenorrhœa and Menorrhagia. Dr. F. H. Martin, October 15, 1883.

(18) Is Extirpation of the Cancerous Uterus a Justifiable Operation? Dr. A. R. Jackson, November 5, 1883.

(19) Treatment of Trichiasis by Electrolysis. Dr. J. E. Colburn, November 5, 1883.

(20) The Immediate Operation for Laceration of the Perinæum. Dr. E. C. Dudley, November 19, 1883.

(21) Glycosuria. Dr. Oscar C. DeWolf, November 19, 1883.

(22) Treatment of Bright's Disease. Dr. Chas. W. Purdy, December 3, 1883.

(23) Treatment of Granulated Eyelids with Jequirity. Dr. F. C. Hotz, December 3, 1883.

(24) Report of an Obstinate Case of Sciatica, including the Details of Operation by Stretching the Sciatic Nerve, with Recovery. Dr. F. E. Wadhams, December 3, 1883.

(25) Alveolar Abscess Simulating Nasal Catarrh. Dr. John S. Marshall, December 17, 1883.

(26) Packing-House Wounds. Dr. Wm. L. Axford, December 17, 1883.

(27) Perverted Sexual Instinct. Dr. J. G. Kiernan, January 7, 1884.

(28) Potts' Disease, (The Mechanical Treatment of Dorsal Caries with Great Deformity, and Exhibition of Apparatus.) Dr. C. E. Webster, January 7, 1884.

(29) *Gelsemium Sempervirens*. Dr. Charles G. Davis, January 21, 1884.

(30) Report of a Case of Cystic Growth in the Posterior Nares, with Operation for Removal and Final Favorable Result, paper prepared by Dr. E. F. Ingals, read by Dr. Robert Tilley, January 21, 1884.

(31) *Paretic Dementia in Females*, with a report of a case. Dr. S. V. Clevenger, February 4, 1884.

(32) *Treatment of Stricture of the Urethra*. Dr. Henry J. Reynolds, February 4, 1884.

(33) *Report of a Case of Ventral Hernia*. Dr. Wm. L. Ax-ford, February 18, 1884.

(34) *Report of Three Cases of Arrested Fœtal Development, or Maternal Impressions*. Dr. Luke A. Harcourt, February 18, 1884.

(35) *Potts' Disease as Illustrating the Principles of Early Diagnosis*. Dr. C. E. Webster, March 3, 1884.

(36) *Report of a case of Aneurismal Tumor from the Arch of the Aorta (with specimen)*. Dr. O. J. Price, March 3, 1884.

(37) *On the Ætiology of Typhoid Fever*. Dr. J. F. Todd, March 17, 1884.

(38) *Select Topics in the Surgery of the Nervous System, subdivided—I. Suture of Nerves. II. Elongation of Nerves. III. Exploration of the Brain by the Hollow Needle*, paper prepared by Dr. Roswell Park, and read by Dr. L. H. Montgomery, March, 17, 1884.

A number of important committees have been appointed during the year, one of the most important of which is the Committee on Library. A review of their work has also been embodied in this report (for fear, perhaps, that they would not be present or prepared), but I notice its chairman present, and you will therefore hear from him in detail a more interesting report than this one. Twenty delegates from this society attended the annual meeting of the American Medical Association in Cleveland, last year, beside other permanent members of the Association from this society that attended, swelling the number to thirty-four. A slight digression for a moment, yet apropos to the subject, will be pardoned, when I allude to an extract from a letter

recently received from the Permanent Secretary of the Association. He states: "The present membership is about 3,000, of which 1,100 attended the meeting one year ago. Your society did well," and this year if the twenty-five delegates to be elected to-night can attend the coming meeting of the Association to be held in Washington the first Tuesday in May next, assuming that the great distance will prevent more than thirty from attending altogether, who are members of this society, it certainly is to our credit, if the entire number in attendance at the Association meeting should consist of one-thirtieth of its members from Chicago. We hope also that all who can do so will attend the meeting of the State Society to be held in this city, beginning on the 3rd Tuesday of May next.

To recapitulate. One special meeting was held for the informal reception of a distinguished Fellow, Sir William MacCormac, with the number of regular meetings alluded to and regular order of scientific business. Well may we have reason to feel proud of the honor to be a member of the Chicago Medical Society, and our half dozen colleagues who are not resident members, some of whom are located in cities of other states, I believe desire to retain their membership here, if for no other reason, as two have informed me, than that of receiving the anticipated postal card announcement.

Regarding discipline and courtesy to each other, and to myself particularly, during the year just elapsed, I can bear testimony that a great deal of it has been extended, and it is to your interest as well as having the best interests of the society at heart, that this fraternal feeling for each other should long continue to exist, and of which the success this society has achieved is greatly due, and before closing I desire to add:

Be pleased to accept my thanks, especially for the many personal favors bestowed, and if mistakes have occurred, as they most surely will now and then, do not attribute it wholly to the officers, but extend your leniency to other causes and imperfections in proportion to the great pleasure the duties of the work have been performed by the Secretary; and for fear, possibly, of being misunderstood, I wish to state again, our success has

been greatly aided by your united efforts, and with this I may say officially to you "vale!"

LISTON H. MONTGOMERY.

65 Randolph St., April 7, 1884.

The following is a synopsis of the voluminous report of the Committee on Library, which is also their first annual report, submitted by Dr. Edmund Andrews, Chairman :

Money appropriated by the society.....	\$500.00
Money contributed by physicians, dentists, and druggists	317.00
Money pledged by four gentlemen to meet transportation of books from Europe and other expenses.....	50.00
110 volumes of books, donated by various parties, estimated cash value.....	155.00
Total.....	\$1,022.00

Of the cash above stated we have expended the following sums :

Paid W. T. Keener, of which \$500 was paid by the Treasurer of the society according to the appropriation.....	\$528.15
Paid for postage both ways, on circulars sent to 1,500 men	63.00
Paid for stationery and printing.....	15.45
Paid for express charges and sundries.....	2.50
	\$609.10

Which sum deducted from \$817, the amount actually collected, as above stated, leaves cash on hand..... \$207.90

This latter sum, with the \$50 pledged by four gentlemen, will more than cover the cost and transportation of books, which we have ordered from Europe.

Several well-known works are omitted, because new editions are about to appear, which will be best to purchase next year. By careful economy of the funds, we have been able to purchase

the great French work, called the *Dictionnaire des Sciences Medicales*; 125 "half volumes" are now out, and the rest will soon be issued. This magnificent work will give us the best thoughts of the French profession on every medical and surgical topic.

Then a list numbering 149 volumes, showing the titles of the works purchased and ordered, was read—also a list of eleven of the representative medical journals purchased.

Also a list of medical and surgical works donated by the following persons, valued at least to be worth \$155.

Mrs. George C. Clark, 62 bound volumes.
 W. T. Keener, 3 bound volumes.
 Dr. R. B. Treat, 9 bound volumes.
 Dr. R. Ludlam, 9 bound volumes.
 Park, Davis & Co., 10 bound volumes.
 Dr. A. B. Stockham, 3 bound volumes.
 Dr. A. H. Foster, 3 bound volumes, worth at present, \$30.
 Dr. Justin Hayes, 1 bound volume.
 Dr. H. P. Merriman, 6 bound volumes.
 Anonymous Donor, 2 bound volumes.
 Dr. E. Andrews, 3 bound volumes.

Summary of volumes:

Bought of W. T. Keener.....	160 vols.
Ordered from Europe, but not arrived	74 vols.
Books donated.....	110 vols.
Total.....	344 vols.

We find an increasing interest and enthusiasm on this subject on the part of the profession, and plans have been laid before us for raising very much larger sums annually for a period of years. The authorities of the Public Library coöperate with us more cordially, and are now diligently at work cataloguing and shelving the books preparatory for use. In accordance with the advice of this society, which we heartily endorse, the Librarian will keep them always ready for reading in the library and not loan them out. Very respectfully submitted,

E. ANDREWS, Chairman,

F. C. HOTZ,

OSCAR C. DEWOLF, Committee on Library.

Per L. H. MONTGOMERY, Secretary.

The following officers were elected for the ensuing year :

Dr. D. A. K. Steele, President.

Dr. Chas. W. Purdy, 1st Vice-President.

Dr. Curtis T. Fenn, 2d Vice-President.

Dr. Liston H. Montgomery, Secretary (re-elected.)

Dr. E. Fletcher Ingals, Treasurer, (re-elected.)

Dr. Wm. E. Quine, Dr. G. C. Paoli, Dr. D. R. Brower, Committee on Membership.

Dr. D. W. Graham was elected to the vacancy on the Committee on Library, caused by the expiration of Dr. Oscar C. DeWolf's time, as provided in the By-Laws.

Fifty dollars was voted unanimously to the Secretary, Dr. L. H. Montgomery, as a testimonial and souvenir for duties he had performed as an official during the year.

Fifty dollars was also voted unanimously to Messrs. John B. Drake & Co., proprietors of the Grand Pacific Hotel, for use of their parlors and other courtesies extended to the society.

Fifteen dollars was also voted unanimously to the Treasurer, Dr. E. F. Ingals, for losses he may have made good (as per discrepancies) in his annual report, as per Auditor's report.

Considerable miscellaneous business was rapidly dispatched, including a complimentary vote of thanks to the retiring President.

Dr. W. H. Curtis moved that this society do now adjourn, and the society at a late hour stood adjourned.

The following delegates from the Chicago Medical Society were elected at the annual meeting, held at the Pacific on the evening of April 7, 1884, to the American Medical Association, which will meet at Washington, May 6 next :

Dr. F. M. Wilder, Dr. A. Reeves Jackson, Dr. W. W. Allport, Dr. Eggleston Burrows, Dr. N. E. Rice, Dr. Frank Billings, Dr. J. G. Kiernan, Dr. E. F. Gaston, Dr. J. F. Todd, Dr. W. T. Montgomery, Dr. W. E. Clarke, Dr. C. S. DeVeney, Dr. Simon Strausser, Dr. C. J. Simons, Dr. A. H. Cooke, Dr. Philip Adolphus, Dr. J. E. Walton, Dr. T. W. Brophy, Dr. J. S. Marshall, Dr. H. J. Reynolds, Dr. L. H. Montgomery, Dr. J. H. Chew, Dr. E. F. Ingals, Dr. T. W. Miller, Dr. C. T. Parkes, Dr. E. J. Doering.

AUDITOR'S REPORT.

Dr. Curtis T. Fenn, Chairman.

1. Expenditures.—All expenditures were attested by proper vouchers, except \$3 for clerical labor and \$7.60 collectors' fees.

2. Receipts.—On comparing the cash list with the membership register and schedule of annual dues, it appeared that three ordinary members were on the one hand credited with dues which did not on the other hand enter into the list of cash received.

The omission was accidental, and partly due to disputes concerning the terms of the fiscal year. All questions of this kind have been, happily, removed.

3. Amount on hand at the beginning.—This part of the report it has been difficult to verify. The society has not required its reports to be audited, and for five years there has been no auditing committee until now.

That committee were, therefore, invited to take the books and to go through them searchingly and thoroughly. In glancing back, it was noticed that an entry in the cash account bearing date November 1, 1880, To balance, \$2.65, re-enters in balancing August 4, 1881, causing an error, the correction of which will be \$2.65 in favor of the Treasurer for the year ending April, 1882.

But there were also slight discrepancies in 1882 between the schedule of dues and the cash list, three persons having received credit and no corresponding entry having been made of the amount.

These three, although unable to show receipts, had refused to accept repeated duns, and the Treasurer on his part, believing the dues to be unpaid, had simply refused to charge the amount to himself. However, in view of the continued assertion of these members of their recollection of settlement, the Treasurer has made the books tally by taking the amount, as he believes, from his own pocket.

From 1882, the examination led to 1881, beyond which the committee did not find it convenient to go.

In 1881 sixteen persons are credited with dues whose names do not figure in the cash list. But it was in that year that Treas-

urer Davis died. The following note from the present Treasurer sufficiently explains itself.

"In looking over my ledger, I find that on the 9th of October, 1880, Dr. N. S. Davis handed to me all that was left at the time of the collections since the annual meeting, amounting to \$17.40. I have no way of telling what the expenses of the society had been during those six months, neither are there any records to show how much the former Treasurer may have had on hand at the beginning of the fiscal year.

"Therefore I see no possible way of making the register before 1881 tally with the cash book, and as several of the dues for 1880 were paid in 1881, and there is no way of telling in most instances for what year any special payment should apply, I do not think it possible to make 1881 and the cash book tally. It will not be possible accurately to ascertain even about 1882."

From this may be seen what lay before the Auditor. One or two matters of simple criticism may be mentioned. The Treasurer's report of 1881 ends with \$173.67 in the treasury. The report of 1883 begins with \$156.32.

Again, the report of 1882 ends with \$346.07, while the report of 1883 begins with \$339.07.

These discrepancies in the reports themselves are explained by the fact that the present Treasurer was in the habit of including receipts and expenditures up to the close of the annual meeting in the year that had just preceded them.

There is one more item of some importance. Of thirty-three new members in 1883, there were fifteen at the end of the year who had not paid the initiation fee. These were all enrolled and the money in the treasury, therefore, there should have been \$15 more (by Article V, Section 2 of the By-Laws) in the treasury.

Of seventeen new members in 1882, only twelve paid their initiation fee, making an obvious loss of \$5 in the report of that year.

Returning to the matter in hand, this examination finds \$6 to be added in 1883, and \$6 in the previous year.

But \$2.65 have to be subtracted in 1882. Moreover, in that year there was one payment of annual dues credited to "unknown," which must be subtracted, in all \$4.65, leaving \$1.35.

This and \$6 makes \$7.35 to be added in favor of the society. Instead, therefore, of \$547.82 the true balance to 1884 becomes \$550.06.

Respectfully submitted,

CURTIS T. FENN, Chairman.

LISTON H. MONTGOMERY, Secretary.

} Auditing Com.

This report was, upon motion, duly seconded, received, accepted, and placed on file.

MICHIGAN STATE BOARD OF HEALTH.

[Reported for the CHICAGO MEDICAL JOURNAL AND EXAMINER.]

The annual meeting of the State Board of Health was held at its office in Lansing, April 8, 1884.

The members present were, President Avery, Drs. Lyster, Hazlewood, Vaughan, Tyler, and Secretary Baker.

Reports of the sanitary condition of the Wayne County Poorhouse and Asylum, and of the Barry County Jail, were made, by the committee who examined these institutions, and these reports were ordered printed.

Dr. Vaughan read a paper prepared by Dr. C. P. Pengra, which gave results of investigations relative to the purification of water by freezing. As a result of a series of elaborate experiments, conducted in the University laboratory, Dr. Pengra found that, contrary to the general impression, freezing does not render water pure. Ordinarily, he found less infusoria and bacteria in ice than in the water from which it was frozen, but the ice contained them in numbers sufficient to preclude its use. In harvesting ice, the greatest care should be taken to get it from a pure source. This valuable paper will be published in the Report of the Board.

The Secretary presented a summary compiled from lists of medical practitioners registered under the new law. The number of counties in the State is 80, from 76 of which reports have been received. The number of registrations returned is 3,285, but in some cases physicians are registered in two or more counties. The number reported to have graduated is 2,351; those who

had attended some college but had not graduated, 208; those who had attended no college, 726. The number belonging to all schools reported as having graduated is 72 per cent. of the whole number, the non-graduated collegiates are 6 per cent., and the non-collegiates are 22 per cent. of the whole number. The "graduates" are from all classes of medical colleges, hospitals, medical societies, etc. The number of different "schools" of medicine reported in these sworn statements is about 75, including "Cureopathic," "Indian," etc. In at least one instance it is reported that the sworn statement had to be signed by a "mark," the practitioner being unable to write even his own name.

The number registered as belonging to the four most prominent schools of medicine is as follows: Regular, 1,533; homœopathic, 490; allopathic, 398; eclectic, 366. The proportion of graduates to practitioners is: regular, 87 per cent.; homœopathic, 74 per cent.; allopathic, 81 per cent.; eclectic, 47 per cent. (Of all schools, as above stated, the per cent. is 72).

It was decided to print the names and addresses of the health officers in Michigan as soon as full returns are received. The number in the State is nearly 1,400. A new edition of the document on the prevention and restriction of scarlet fever was ordered, the last edition of 30,000 copies being nearly exhausted. It was also decided to publish facts relative to several outbreaks of trichiniasis in Michigan.

The following resolutions were unanimously adopted:

Resolved, That this Michigan State Board of Health respectfully and earnestly memorializes Congress to pass the bill introduced into the House of Representatives, Jan. 8, 1884, by the Hon. Casey Young, or some similar bill, providing for the prevention of the introduction of infectious diseases into the United States, and for procuring information relating to climatic and other conditions affecting the public health.

Resolved, That we consider the National Board of Health the best existing and the proper agency to carry on the work mentioned in the preceding resolution.

The Board discussed the merits of several text-books on physiology and hygiene with special reference to the effects of alcohol on the human system, and approved for use in the schools: Martin's "Human Body," briefer course, second edition, containing special chapter on alcohol and other narcotics; and Dr. Eli F. Brown's "Alcohol: Its Effects on Body and Mind."

The amount of office work during the quarter has been large, and has included: the perfecting of arrangements for holding a Sanitary Convention at Hillsdale; preparation of the proceedings of the Ionia Sanitary Convention for the printer; the making of a compilation of the public health laws of Michigan; proof-reading on 96 pages of the Annual Report; issuing blanks for the return of the new health officers in each city, village and township in Michigan; issuing the regular weekly bulletins of meteorology and of sickness in Michigan; the correspondence of the office (postals are not usually copied), covering 750 pages of letter-copying book, of which over 150 pages have direct reference to the prevention and restriction of communicable diseases in Michigan; and the regular computations of data relating to meteorology and sickness.

OBITUARY.

The numerous friends in the Northwest of Prof. Chas. T. Hunter, A.M., M.D., late of Philadelphia, were lately pained by the report of his death, in his forty-first year. Dr. Hunter was a physician of acknowledged ability, and his early death cuts short a career of unusual brilliancy and usefulness. He was graduated from the University of Pennsylvania in 1868, taking his degree most creditably, and had since been engaged in the practice of his profession in that city. He was associated at one time with the medical Faculty of the Pennsylvania Hospital, and subsequently was elected Demonstrator of Anatomy in the University of Pennsylvania. It was while he was engaged in his professional labors that the accident occurred which has just terminated fatally, and in the loss to the profession of one of its brightest ornaments. About three years ago, while Dr. Hunter was engaged in dissection, a slight cut was inflicted upon one of his fingers, near the nail. The most skillful medical treatment failed to correct the rapidly and ominously advancing septicæmia which resulted. Recently he was removed from his city residence to his father's at Haverford College, in the hope that country air might help to allay the severity of his symptoms, but they continued to increase till the entire system was affected, and death ensued after great suffering.

Dr. Hunter's name is associated with a number of the later advances made in surgery, among which may be named the surgical use of hot water, and the revival of the transfusion of food and subcutaneous injection of fluid aliments. He was the author of the anatomical portions of Packard's and Ashbridge's works, and of numerous papers that attracted attention not only from their intrinsic merits, but also from the fact of their authorship. Among those who bore his remains to their last resting place was his old friend and physician in his last illness, Prof. D. H. Agnew.

Prof. Hunter's acquaintance was highly prized in Chicago. During his late visit to this city, a visit enforced by the condition of his failing health, he made warm friends, especially among the members of the profession to which he belonged. Many of those who met him here in the entertainments which he graced with the charm of his conversation and the ripeness of his mature intellectual powers, mourn for the loss which American medicine sustains in the death which he bravely and calmly met, joining the noble army of martyrs to the advancement of science.

Editorial.

DR. DEARBORN.

The citizens of Chicago are familiar with the name of Dearborn. It is well known, in this locality at least, that the name was borne by General Henry Dearborn, and was in his honor given to the fort that occupies so large a space in the early history of this metropolis. But there are probably few medical men acquainted with the fact that the famous general was one whose military history was antedated by an honorable membership in their own profession.

Those who are interested in the precise facts to which we refer, should consult a scholarly paper on the subject of the Dearborns, prepared by Mr. Daniel Goodwin, Jr., of this city, lately read before the Chicago Historical Society, and now published in the proceedings of that body.

From this sketch, it appears that the Dearborn family in America began with one Godfrey Dearborn, born in Old Exeter, county of Devon, England, about the year 1600. He first came to the Massachusetts colony about 1639, and soon after this removal settled in Exeter, New Hampshire.

In the fifth generation of his family appears the name of Henry Dearborn, born at North Hampton in 1751, who grew up among the New England hills, a fine type of manly strength, agility, and beauty. "He was tall and straight, muscular and agile. He was noted as an unmatched wrestler, never having met his equal, and was an ardent sportsman. In all his journeys he carried his gun and rod and dog, and was an expert in cricket

and ball until long past middle life. When not engaged in business or exercise, he was a constant reader, and was master of as good English as the War Department has produced. After going through one of the best schools in New Hampshire, he began and completed a full course of medical instruction under Dr. Hall Jackson, of Portsmouth, a distinguished surgeon in the army of the Revolution."

Dr. Dearborn, before the outbreak of the Revolutionary war, was established in the practice of his profession at Nottingham. Taking up the habits of the young men in his vicinity, he made himself familiar, in his leisure moments, with military evolutions and the science of making war. "The spirit of the mountains was stirred." The sentiments that in our own day have prompted many doctors to join the rank and file of a volunteer army, were then moving the men who took such active part in the foundation of the American republic.

On the 20th of April, 1775, Dr. Dearborn heard the news that war had been begun by the action of the British troops at Lexington.

He made no delay. With sixty of his townsmen, who only knew that Boston and its inhabitants were in peril, they marched one afternoon, with guns on their shoulders, from Hampton to Cambridge, a distance of fifty-five miles.

This was the beginning of the doctor's military career. He was soon commissioned as a captain, in the first regiment commanded by Col. John Stark. In ten days he had enlisted a company, and marched with them to Medford, carrying on his own person both gun and sword.

We have not space to detail further the exploits of the young doctor-officer, nor to follow the other steps in his interesting career. We might with interest go with him into action at Bunker Hill, or march with him in the campaign under Benedict Arnold at Quebec, during which for a month he was prostrated by illness, cared for alone by a French boy, in a hut.

What stirring scenes were those in which he played his active part! Very different indeed were his, from the battle-fields on which Count Rumford led his foreign dragoons against the enemy. Of the latter, we had occasion to speak in a late number of this

journal, as another of the young New England physicians whom the stress of that Revolutionary crisis withdrew from the peaceful pursuits of their profession to the bloody fields of war. Rumford was every inch a Tory; Dearborn, a patriot of patriots. Rumford distinguished himself at Strasburg and Munich; Dearborn, at Ticonderoga, on the banks of the Hudson, at Valley Forge, Saratoga, Yorktown, and Monmouth; names inseparably associated with the patriotic sentiments of the people of this land. He was the personal friend of most of the great heroes of his day and cause, fighting successfully by the side of Stark, Arnold, St. Clair, Gates, Greene, Sullivan, and Washington himself. His career not only in the field, but in Congress, has occupied a proud position in the annals of this country's history.

The medical men of this America have little reason to be ashamed of the list of names they have contributed to the long roll of those who have distinguished themselves in other professions. Rumford, Warren, Dearborn—these were but the promise of the many who were to succeed them in a later war, where there were no fewer opportunities of showing to the world of what stern stuff they were made.

Chicago has named one of its finest avenues after the doctor-general, Henry Dearborn; and it is interesting to note that since it was first given, there has never been a proposal to change it.

ERRATA.

In the article on the Hymen, by Dr. E. S. McKee, in the May number of the *MEDICAL JOURNAL AND EXAMINER*, the following corrections should be made: For *camisca*, read *camiscei*; for *primis*, read *fremis*; for *juonem*, read *juonum*; for *memiserem*, read *mesmerum*; for *virginitas*, read *virginates*. In enumerating the punishments for rape of various States and nations, the fact that death is the punishment in Texas was omitted.

Domestic Correspondence.

[Having now with some patience published in full the statements and counter-statements of both parties to the question considered in the subjoined communication, we must decline to receive any further rejoinder from either side, as the subject is not specially interesting to the readers of this journal.]-EDS.

DUNNING, ILL., APRIL 21, 1884.

TO THE EDITORS OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER.

Gentlemen:—In the January number of your journal was published my article on Practice at the County Infirmary. Among other cases reported was that of J. C. McMullen, who, in trying to alight from a freight train while in motion, Nov. 1, 1882, sustained a compound comminuted fracture of the tibia and fibula, necessitating an amputation of the upper portion of the middle third of his left leg. The operation was performed by Dr. D. B. Fonda, who, in his reply to my article in the April number of your journal, takes exception to that portion of the article alluding to the case. First, because he considers himself persecuted on account of his close proximity to this and neighboring public institutions. Second, that the date the patient was admitted to this institution is erroneously stated in my article. Third, because of the statement that no ligature ends were found outside the stump when the patient was admitted, but that a "large bundle" was discovered where the stump sloughed. In reply, I disclaim all jealousy of or desire to injure Dr. F. or any other neighboring practitioner. If there is any feeling existing, a comparison between the two replies will show where it is. The remaining points

are covered by affidavits by Dr. Morgan, of Chicago; Dr. Bennett, of Minneapolis; Alexander Bruce, of this institution, and myself. As Dr. F. has seen fit to introduce several affidavits in his reply by himself, his son-in-law, and a reputed medical student, I consider myself extremely fortunate in having the affidavits of several medical gentlemen who are acquainted with some of the facts in the case.

A. W. HAGENBACH, M.D.

I, A. W. Hagenbach, being duly sworn, on my oath do say, that I have in my possession the first copy of the article on "Practice at the County Infirmary," published in the January number of the CHICAGO MED. JOUR. AND EXAMINER, and that the first two dates in the case of "Ligature of Femoral and External Iliac Arteries" are there given as Nov. 1 and Nov. 4, instead of Oct. 22 and 26, and that the dates were taken from the Male Hospital Register of this institution. I further say that when J. C. McMullen, the person alluded to in my article, was admitted to the infirmary after the amputation of upper portion of the middle third of his left leg, there were no ligature ends outside of the stump, and that as the stump opened up by sloughing, numerous ligatures were found at the bottom of the wound, some cut short, others long and matted together. Further, that the main facts of the article are taken from notes made at the time by Dr. Morgan, of the Cook County Hospital, and myself, and that the case as reported is to the best of my knowledge in every respect true and correct.

A. W. HAGENBACH, M.D.,

Med. Supt. Cook Co. Infirmary.

Dr. Allen W. Hagenbach, personally known to me, has been duly sworn to the fact stated and subscribed to in the foregoing instrument, this eighteenth day of April, A.D., 1884.

[SEAL.]

G. T. WOLF, Notary Public.

Dunning, Illinois.

CHICAGO, APRIL, 19, 1884.

EDITORS OF THE CHICAGO MEDICAL JOURNAL AND EXAMINER.

Gentlemen: — In reply to Dr. Blackburn's *a priori* criticism I beg leave to state: First, Dr. Worcester (op. cit., p. 274) says, "there are two or three agents employed by the old school whose

use you will do well to bear in mind, both for your patients' sake and *because you will not want to see your patient pass into another physician's hands.*" The agents alluded to are: chloral hydrate, in thirty grain doses; potassium bromide in ten grain doses; morphine in half-grain doses; hyoscyamine in three-quarter grain doses. It may be honest for Dr. Blackburn to practice in this way, but to me it seems the worst sort of therapeutic dishonesty. Second, Dr. Worcester did graduate from a regular school, practiced *medicine* for several years, then adopted a sectarian designation, and became a professor in a sectarian school. Such a change of views, if honest, is to be respected, but the honesty of such a course is usually suspected where a man profits by a change of views, and at the same time advocates the procedures cited from Dr. Worcester. If Dr. Blackburn's statement, that my assertion of the facts of Dr. Worcester's career above is false, be then true, Dr. Worcester committed perjury at the time of the Guiteau trial, for he swore to the facts above stated, and it is on his *sworn* testimony that I based the statements made. If Dr. Blackburn will read Dr. Worcester's book, and then read his evidence in the Guiteau trial, and contrast the views, he will alter his opinion as to Dr. W.'s ability and honesty. I am not an "allopath," nor do I know that such a sect exists. I am not opposed to the therapeutic views other than as opposed to my idea of what is rational. I object to sectarian designations in science, but am not even a bigot in this respect. Dishonesty in the statement of science is what I am opposed to, and from the extract cited you can judge how just my criticism of Dr Worcester was. Very sincerely,

JAS. G. KIERNAN.

I, Alex. Bruce, being duly sworn, on oath say that I was nurse of the male surgical ward, Cook County Infirmary, November 1, 1882, when Joseph C. McMullen was admitted with the left leg amputated in the middle third. That I was present at the first and all subsequent dressings of the amputated member up to the time of the death of the said J. C. McMullen, and that at the first dressings no ends of ligatures were outside of the stump; their absence was remarked upon at that time, and that the first liga-

tures seen was after the stump had sloughed, when a large bundle and several short ligatures were seen in the stump, and that both bones of the leg protruded beyond the end of the stump when the second amputation was made by Drs. Morgan and Bennett, of the Cook County Hospital.

ALEX. BRUCE.

Mr. Alex. Bruce, personally known to me, has been duly sworn to the facts stated and subscribed to above.

[NOTARIAL SEAL.]

Dunning, April 18, 1884.

G. J. WOLF,

Notary Public.

CHICAGO, April 7, 1884.

I, Wm. E. Morgan, being duly sworn, on my oath do say : That on November 16, 1882, at Cook County Infirmary, State of Illinois, during the temporary absence of Dr. A. W. Hagenbach, and with the assistance of Dr. Bennett, then interne of Cook County Hospital, I re-amputated a sloughing stump on the left leg of one J. C. McMullen, and that the following is a verbatim copy of a note written by me in the hospital records concerning said stump ; also that the description is correct, and was verified by me by autopsy of the amputated part :

"Stump sloughed and opened up, revealing a large bunch of silken ligatures left in the stump. A second operation was deemed advisable, so the operation was performed on the 16th, a re-amputation being made one and a half inches higher than the first."

I do not wish to enter into any professional discussion, but I remember distinctly the condition of the stump, and make this affidavit simply from the facts then existing, regardless of whom the statement may hit. There were many ligature ends, some short and some long, wadded into a bundle, having been some time previously sewed up, *bagged*, if I may use the expression, within the stump, and the ends of both tibia and fibula protruded from the stump.

WM. E. MORGAN, M.D.

3160 State Street, Chicago, Ill.

Subscribed and sworn to before me this seventh day of April, A. D., 1884.

[NOTARIAL SEAL.]

D. McDONALD, Notary Public.

STATE OF MINNESOTA, }
County of Hennepin. }

Dr. E. R. Bennett, being duly sworn, and on his oath deposes

and says, that on November 16, 1882, at the Cook County Infirmary, in the county of Cook, State of Illinois, during the temporary absence of Dr. A. W. Hagenbach, I assisted William E. Morgan, then interne of the Cook County Hospital, in re-amputating a "sloughing stump" on the left leg of one J. C. McMullen, and that the following is a correct description of the stump before re-amputation: Stump sloughing, flaps ulcerated and shortened, with end of tibia and fibula protruding. On opening up the stump, I distinctly remember finding a large bunch of silken ligatures matted together which were left in the stump. A second operation being deemed advisable, a re-amputation was performed upon the 16th day of November, 1882.

DR. E. R. BENNETT.

Subscribed and sworn to before me this 16th day of April, 1884.

[NOTARIAL SEAL.]

JOHN F. HAYES, Notary Public.

Hennepin County, Minn.

GENTLEMEN:—In your April number, pages 439 and 442, appears a criticism by one J. G. Kiernan, on "Insanity and its Treatment," by Samuel Worcester, M.D., concerning which I wish to say a few words. I do not object to any honest, plain criticism of any medical work; for so much chaff is written that we have to wade through oceans of it to gather one little grain of truth; but I do earnestly protest against personal abuse, such as appears in the article mentioned. Dr. Worcester is called a "homœopathic renegade," which would imply that he is a traitor to his homœopathic principles or faith. I suppose the author meant he was a traitor to allopathic principles. *This is not true*, and only illustrates the bitter malignity with which the allopathic school has always pursued those who dared to differ with them. That it was meant to be personal is proven upon page 442, where Dr. W. is charged with "dishonest therapeutic views," and it seems to me that such remarks concerning a gentleman of Dr. S. Worcester's standing could not be written by a decent man, or published in a respectable medical journal.

G. E. BLACKBURN.

No. 2819 Cottage Grove Avenue, April 15, 1884.

Book Reviews.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By ROBERTS BATHOLOW, M.A., M.D., LL.D. Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, etc. Fifth edition, revised and enlarged, 8vo. cloth, pp. xxii-738, New York: D. Appleton & Co., 1884.

This, as well as the work of the same author on Practice, is one of the many treatises of which the American medical profession feel proud, and it will pass to posterity as one of the medical classics, for it embodies in its tersely written pages the national ideas of therapeutics as they are applied to-day by the best practitioners, and as they are likely to remain, with a few modifications, for some decades yet.

This new revised edition is produced, the author tells us, in order to conform it to the sixth decennial revision of the United States Pharmacopœia, though one soon expected to see a new edition of the Materia Medica, for they have been supplied at the rate of one edition for less than two years since the appearance of the first; a phenomenon rarely seen in medical literature.

The methods of Prof. Bartholow are at the same time scientific and simple. His classification of the subject will be well appreciated by students especially, and the bibliography which appears at the end of each article, is a commendable feature which is found in all the leading scientific books of the day, and facilitates study.

However, in spite of so many commendable arrangements, the work fails to give us the doses of medicines in the metric system, and will thereby help more than others to retard progress in a practical direction. Although its pages are most likely

stereotyped, the dose of most drugs is stated in a separate paragraph, and it seems that the cost of adding metrical figures would have been slight.

A late review of this book complains of some discrepancy between it and the new pharmacopœia. We only find a slight difference in regard to laudanum, and it is one which is not likely to lead to any mischief, in our opinion, and the profession at large will be thankful for this new edition.

The enthusiasm of the author for the treatment of disease by the hypodermic syringe has been blamed by some, but we are persuaded that a more scrupulous cleanliness in the physician, and a little less ignorance in the community, will eventually bring that method into even a higher repute and more extensive use than Bartholow recommends now. The daily use of the syringe in our hands has failed, as in hundreds of others physicians' hands, to produce a single abscess yet, but the antiseptic precautions necessary in its use were always observed.

H. D. V.

HAND-BOOK OF ELECTRO-THERAPEUTICS. By DR. WILHELM ERB, Professor in the University of Leipzig. Translated by L. PUTZEL, M.D., with 39 wood-cuts. June No. of Wood's Library. 8vo, cloth, pp. xi-366. New York: William Wood & Co. 1883.

The first 32 pages of this volume are occupied by a physical introduction, from which all elementary knowledge of electricity has wisely been omitted, as it is supposed that every physician has some notions of electrical science. Follows a physiological introduction of 25 pages, in which the general effects of electricity on the living body are briefly stated. Then comes Electro-Diagnosis, in which Erb has gained so much reputation, especially in connection with the Reaction of Degeneration. Many brief cases are reported to illustrate the laws of electrical action on different classes of cases. The fourth part of the volume is given to General Electro-Therapeutics, beginning with page 103.

After a few remarks on the most important electro-therapeutical theories, that of Dr. Poole, of Ontario, that electricity is a paralyzer, being omitted, the author tells us that now, as form-

erly, electro-therapeutics must be studied on an empirical basis. Of the electrical bath Erb says: "*A priori*, it cannot be denied that the electrical bath may produce very marked effects, but the therapeutical experience hitherto obtained is not calculated to inspire great faith in its efficacy." The author believes that the most important principle is the treatment in *loco morbi*.

Part V, and last, treats of Special Electro-Therapeutics, and occupies the most of the volume. Diseases of the Brain, including the Psychoses; Diseases of the Spinal Cord; Diseases of the Peripheral Nerves; Paralysis and Atrophy; Neuralgia; Spasm; Neuroses; and a few other classes of diseases, form the main divisions of this part.

As electricity has not yet come into general use among ordinary practitioners, this treatise will be found by them amply sufficient.

H. D. V.

ELEMENTARY PRINCIPLES OF ELECTRO-THERAPEUTICS. For the Use of Physicians and Students, with 135 Illustrations. Prepared by C. M. HAYNES, M.D. Published by the McIntosh Galvanic and Faradic Battery Co., Chicago, Ill. 8vo. 420 pp. Price, \$2.

This is a plain, practical, and complete exposition of the subject of which it treats. It contains suggestions in regard to the selection and care of batteries, comparisons of the different forms of electricity in their physiological effects and therapeutic action, and the application of electricity to diagnosis. It discourses quite in detail on the subject of electrolysis, the galvano-cautery, and the electro-thermol bath. It also contains a full vocabulary of electrical language. The book will be found very useful to the busy practitioner who wishes to get at the practical facts of electro-therapeutics in a clear and succinct form. The illustrations are numerous and many of them original, and add much to the value of the book. The paper, composition, and press work reflect credit on those who had charge of the details of its publication.

On the whole, we can earnestly commend the book to all seeking information upon the very important subjects it elaborates.

D. R. B.

THE MEDICAL STUDENT'S MANUAL OF CHEMISTRY. By R. A. WITTHAUS, A.M., M.D., Professor of Chemistry and Toxicology in the University of Buffalo; Professor of Chemistry and Toxicology in the University of Vermont; Professor of Physiological Chemistry in the University of the City of New York; Chemist to the City of Buffalo, etc., etc. 8vo, cloth, pp. xi-370. New York: William Wood & Co. 1883.

"In venturing to add another to the already long list of chemical text-books, the author trusts that he may find some apology in this, that the work is intended solely for the use of a class of students whose needs in the study of this science are peculiar.

"While the main foundations of chemical science, the philosophy of chemistry, must be taught to and studied by all classes of students alike, the subsequent development of the study in its details, must be moulded to suit the purposes to which the student will subsequently put his knowledge. And particularly in the case of medical students, in our present defective methods of medical teaching, should the subject be confined as closely as may be to the general truths of chemistry and its applications to medical science." (From the Preface).

This is the third Manual of Chemistry written for medical students by the author within a few years, and we do not believe that a more competent writer exists in America on the science therein treated.

The philosophy of the subject is briefly but clearly stated in the first 38 pages, in which are contained remarkably clear definitions of the properties of matter, its general and physical characters, and its chemical laws of combination. The classification of elements here adopted is surely commendable, although we fail to see why, from a philosophical standpoint, hydrogen and oxygen should form a class by themselves.

Organic chemistry, alcohols, ethers, animal fats, urine, etc., is not made a division by itself, but follows the carbon group, and forms the larger part of the volume. This is certainly a more rational treatment, but whether it will be found more useful and practical, time will show.

The few pages of laboratory technics inserted as part III, at

the end of the volume, will be of much use to the student, and one would wish that a larger part of the work was given to the methods of forming a laboratory for private study, but the author is content in this that "although the Manual puts forth no claim as a work upon analytical chemistry, we have endeavored to bring that branch of the subject rather into the foreground so far as it is applicable to medical chemistry.

H. D. V.

SEXUAL IMPOTENCE IN THE MALE. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the New York Post-Graduate Medical School, etc. Small 8vo, cloth, pp. 274. \$2.50. New York: Bermingham & Co., 1883.

The fascinating style of Dr. Hammond is recognized in every page of this book, which is also rich in original and unique observations. Never before has the subject of impotence received a more careful nor perhaps a more extensive treatment, and, though the reader's natural conclusions will be sad, and will lead him to look with pity on human miseries; though he may philosophize on the *impotence* of therapeutics as applied to-day; yet, he will profit by this interesting statement of the most degraded phase of human morality. The varied experiences of Dr. Hammond enabled him to exhaust thus his subject, and this and other features will more than make up for the scientific methods in which this monograph is lacking. The four chapters into which the book is divided are the following: Absence of Sexual Desire; Absence of the Power of Erection and of Consequent Intromission; Absence of the Power of Ejaculating the Seminal Fluid into the Vagina; Absence of the Ability to Experience Pleasure during the Act of Copulation and during the Emission of the Semen.

This book, we are sorry to say, will offer quacks a rich source of references, and help them more than any work to terrorize and victimize the class on which they thrive.

H. D. V.

Selections.

HOSPITAL WITH CIRCULAR WARDS. Communicated by Mr. J. BROWN, F.R.C.S.

For some time past, an attempt has been made to raise the funds needed to provide a hospital for the town and district of Burnley, Lancashire. The population exceeds 100,000 persons. In addition to the sum of £1,500, as the nucleus of an endowment fund, the committee have succeeded in obtaining subscriptions to the building fund to the extent of £12,600; and a site of two acres in extent has been given, along with a subscription of £1,000, by the executors of the late Colonel Hargreaves. Towards the building fund over £3,000 have been paid in by the working classes within a period of nine months. This has resulted from systematic collections made at the mills and workshops every four weeks. These collections the committee have suspended for the present, owing to the disturbed state of the cotton trade throughout the whole district, but they hope to be able to resume them ere long.

The plans approved of by the committee provide for the erection of a hospital with one-story pavilion wards of the circular form, as suggested by Professor Marshall, President of the Royal College of Surgeons. Two of these wards are to be built at present, with an internal diameter of sixty feet, for the accommodation of twenty beds each.

The architects, Messrs. W. Waddington & Son, of Burnley and Manchester, have designed a sun room, or day room, on the top of each ward, with a promenade twelve feet wide all round it. Access to the roof is given by a gently sloping spiral staircase surround-

ing the smoke and extraction flues, and occupying a closed-in space in the center of the ward, sixteen feet in diameter. There is then left for the ward itself an annular space twenty-two feet in width. The height of the ward at the eaves is fifteen feet, and at the inner portion sixteen feet. The roof is formed of concrete, supported on iron girders. The lineal wall space of the ward is 189 feet, giving an average wall space per bed, excluding doors, of about 8 feet 4 inches. The floor space is 132 square feet, and the cubic space 1,560 cubic feet per bed. Windows are placed between each bed, extending from two feet and a half from the floor to within a foot of the ceiling; and ample provision is made for ventilating, both at the floor level and at a height of about seven feet. From the inner part of the ceiling, and also from the floor, ventilating outlets are led to an extraction shaft which encircles the smoke flues.

The walls of the wards, water-closets, and bath-rooms are to be of glazed bricks or tiles. The floors of the wards are to be of oak, to be beeswaxed and polished. Separated from each ward by a cross-ventilated corridor are the bath-rooms and water-closets.

Connecting the circular wards with the main corridor is a well-ventilated passage, on either side of which is a single-bedded separation ward; and between these wards and the circular ward are the nurses' room and ward scullery.

A subway is provided from the cellar floor of the administrative block to the wards; in this all pipes will be laid; and along it coal, foul linen, cinders, and sweepings will be conveyed.

Provision is made on the site for the addition of four other wards similar in size to those described, and also for a children's ward for fourteen beds, intended to be forty feet in diameter, to have no central staircase, a sun-room, and to have a dome-shaped ceiling.—*Med. Press.*



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